2020

Biblioteca
Hospital Universitari Dexeus
Grupo Quirónsalud

Foto : Dani Olea

Eva Salas Ollé
Documentalista

- Fuentes e Indicadores bibliométricos

- Documentos indexados en: WOS/ PubMed/Current Contents Connect/ Biosis Previews por servicios

- Artículos destacados en 1er Decil

- Indicadores bibliométricos globales

Fuentes de información empleadas

• **Web of Science (WoS):** conjunto de bases de datos de reconocido prestigio, la principal herramienta utilizada por las agencias evaluadoras de calidad científica.

• **Journal Citation Reports (JCR)** herramienta incluida en la plataforma Web of Science (WOS) de Clarivate Analytics, que ofrece datos estadísticos cuantificables de citas, entre ellos el Factor de Impacto, que permiten determinar de una manera sistemática y objetiva la importancia relativa de las principales revistas de investigación del mundo dentro de sus categorías temáticas.

• **Science Citation Index Expanded (SCIE):** índice multidisciplinar de la literatura de revistas de ciencias incluida en la **Web of Science**. Abarca por completo más de 8.300 revistas principales de 150 disciplinas científicas e incluye todas las referencias citadas capturadas de artículos indexados.

• ***Emerging Source Citation Index*** (***ESCI***): base de datos dentro la **Web of Science** dónde están todas las revistas que en la práctica están siendo evaluadas para ingresar en WoS en el Science Citation Index (SCI), el Social Science Citation Index (SSCI) o el Arts and Humanities Citation Index (AHCI). Son revistas que a pesar de tener una alta calidad en su disciplina, pertenecen a un área de conocimiento muy restringida para obtener un factor de impacto.

• **Essential Science Indicators (ESI):** herramienta que proporciona indicadores a nivel mundial para evaluar tendencias en la investigación, usando datos de citas y publicaciones indexadas en la WoS. Identifica los artículos, autores, instituciones, países y revistas con mayor impacto, distribuyéndolos en 22 categorías temáticas.

• **InCites Benchmarking & Analytics:** es una herramienta de evaluación de la investigación, basada en citas, que permite analizar la producción científica institucional y también evaluar y analizar los procesos con otras instituciones de todo el mundo. Es un instrumento de análisis bibliométrico que recoge toda la producción científica de una institución incluida en la Web of Science desde 1981 hasta el momento actual.

• **SCImago Journal Rank (SJR):** Es una herramienta de medición que establece la calidad de las publicaciones científicas basándose en el recuento de citas obtenidas por cada publicación de Scopus. El cálculo de este índice se realiza contabilizando el número de citas recibidas ponderando la importancia o prestigio de las revistas de las que proceden dichas citas.

• **Wizdom:** Programa financiado por el Fondo Europeo de Desarrollo Regional (FEDER), creado por de la editorial académica **Taylor & Francis** con diversas editoriales e instituciones académicas

Indicadores bibliométricos utilizados

• **Número de trabajos indexados en PubMed:** Es un proyecto desarrollado por la National Center for Biotechnology Information (NCBI) en la National Library of Medicine (NLM), a través de un motor **de** búsqueda de libre acceso a la base de datos MEDLINE de citaciones y resúmenes de artículos **de** investigación biomédica, incluye referencias **de** libros, actas de congresos, etc.

• **Número de trabajos indexados en WoS:** Número de trabajos publicados en revistas indexadas en: Biological Abstracts | BIOSIS Previews | Current Contents Life Sciences |Current Contents Clinical Medicine | Essential Science Indicators.

• **Número de trabajos citables en Science Citation Index Expanded (SCIE):** Índice multidisciplinar de la literatura de revistas de ciencias de trabajos indexados sumando las siguientes tipologías documentales: artículos, revisiones, In Press y cartas. Scopus: Número de trabajos indexados sumando solo estas tres tipologías documentales: artículos, revisiones y conferencias.

• **Número de trabajos citables en *Emerging Source Citation Index*** (***ESCI***): Base de datos dónde están las revistas que en la práctica están siendo evaluadas para ingresar en WoS. Tienen una alta calidad en su disciplina, pero pertenecen a un área de conocimiento muy restringida para obtener un factor de impacto.

• **Número de trabajos citables en *Journal Science Citation Index*** (***JSCI***): Índice multidisciplinar que indexa más de 8.500 revistas de 150 disciplinas diferentes, desde 1988 hasta la actualidad.

• **Número de trabajos citables en *Social Sciences Index (SSCI):*** Índice multidisciplinar que indexa revistas de disciplinas de ámbito social, desde 1988 hasta la actualidad.

• **Número y porcentaje de trabajos indexados por Quartiles del Journal Citation Report:** Número y porcentaje de trabajos publicados en revistas con Factor de Impacto, situadas en el primer, segundo, tercero y cuarto cuartil de las categorías de Journal Citation Report

Identificación del tipo de publicación :

Artículo Indexado en: PubMed

Artículo Indexado en: PubMed/ Web of Science (WOS)/Journal Citation Reports (JRC)/ Science Citation Index Expanded (SCIE).

Artículo Indexado en : **PubMed/ Web of Science (WOS)/Journal Citation Reports (JRC)/ Journal Sciences Citation Index (JSCI)**

Artículo Indexado en : **PubMed/ Web of Science (WOS)/Journal Citation Reports (JRC)/Social Sciences Citation Index (SSCI)**

Introducción

El informe resume el volumen e impacto de la producción científica del Hospital Universitari Dexeus. Grupo Quirónsalud – **HUDQ,** recogida en la base de datos **Web of Science (WoS)** dentro del periodo de 1980 a 2020, no obstante en algunos de los indicadores, nos centraremos exclusivamente en el año 2020 que nos ocupa.

La finalidad de este documento es gestionar un entorno de información en continua evolución, para contribuir al aprendizaje, la investigación y la innovación de nuestro centro, mediante estrategias y servicios de excelencia, de forma sostenible y socialmente responsable, que promuevan la generación y transferencia del conocimiento.

El trabajo se divide en cuatro grandes bloques: ***Documentos indexados en las bases de datos PubMed/Scopus/Web of Science (WOS)/Journal Citation Reports (JCR); Indicadores bibliométricos utilizados; Artículos destacados en 1er decil*** *y por último, los* ***Indicadores bibliométricos globales***. Se ha realizado a través de una recogida sistemática de los datos, y también, en la preservación de los trabajos indexados durante el 2020.

Hemos recopilado los artículos científicos publicados por nuestros profesionales, en los que aparece como mínimo un autor cuya filiaciación es del **HUDQ** y que cumplen el requisito de estar referenciados por lo menos, en alguna de las bases de datos anteriormente mencionadas.

Los indicadores bibliométricos, se adjudican a cada artículo por servicio incluyendo el factor de impacto, factor de impacto medio, cuartil y posición de la revista. Corresponden a la base de datos ***Journal Citation Reports* (JCR) 2019**, estos valores **son aproximados** ya que los definitivos para el 2020 estaran disponibles el mes de julio del 2021.

En el informe hemos incluido los artículos con las etiquetas ***Ahead of print*** y ***Online ahead of print*** de PubMed, que hemos ido actualizando cuando estos han sido publicados definitivamente en la revista, y no únicamente en formato **Pre-*print***.

La memoria recoge los artículos publicados en el periodo que va del **1 de enero al 31 de diciembre del 2020**. Esperamos que sea de interés y de apoyo para la Investigación de nuestros profesionales este análisis sobre la información científica de nuestro centro, y así contribuir a mejorar el impacto y visibilidad de la actividad científica del **Hospital Universitario Dexeus.**

Este año, la crisis generada por la pandemia nos ha obligado a afrontar en primer lugar y, sobre todo, una crisis de bienes primarios, esenciales, la vida misma. En esta crisis, la salud es lo primero, porque es una condición necesaria para cualquier otra, ya que abre las posibilidades a todo lo demás.

La pandemia de la Covid-19 ha supuesto notables cambios en nuestra sociedad, incorporando nuevas formas de relación y de trabajo, obligandonos a centrar la gran mayoría de nuestros esfuerzos en combatirla.

Como bibliotecarios de Ciencias de la Salud y profesionales del sistema sanitario, nos hemos encargado de proporcionar información actualizada y de calidad a nuestros sanitarios al frente de esta lucha. Colaborando estrechamente con ellos para dar una mejor respuesta a las necesidades informativas sobre la Covid-19.

AL.LERGOLOGIA

Nº Articulos indexados: 2 **Factor de Impacto total:** 8.280 **Factor impacto medio x artículo:** 4.140

De Jong HJI, Voorham J, Scadding GK, Bachert C, Canonica GW, Smith P, Wahn U, Ryan D, **Castillo JA**, Carter VA, Murray RB, Price DB.

Evaluating the real-life effect of MP-AzeFlu on asthma outcomes in patients with allergic rhinitis and asthma in UK primary care.

World Allergy Organ J. 2020 Dec 19;13(12):100490. doi: 10.1016/j.waojou.2020.100490. eCollection 2020 Dec.

BACKGROUND: MP-AzeFlu (Dymista®; spray of azelastine/fluticasone propionate) is the most effective allergic rhinitis (AR) treatment available. Its effect on asthma outcomes in patients with AR and asthma is unknown. **METHODS:** This pre-post historical cohort study, using the Optimum Patient Care Research Database, included patients aged ≥12 years, from UK general practice with active asthma (defined as a recorded diagnosis, with ≥1 prescription for reliever or controller inhaler) in the year before or at the initiation date. The primary study outcome was change in number of acute respiratory events (i.e. exacerbation or antibiotic course for a respiratory event) between baseline and outcome years. The effect size of MP-AzeFlu was quantified as the difference in % of patients that improved and worsened. **RESULTS:** Of the 1,188 patients with AR and asthma included, many had a record of irreversible obstruction (67%), and uncontrolled asthma (70.4%), despite high mean daily doses of reliever/controller therapy and acute oral corticosteroid use, in the year pre-MP-AzeFlu initiation. MP-AzeFlu initiation was associated with fewer acute respiratory events (effect size (e) = 5.8%, p = 0.0129) and a reduction in daily use of short-acting β2-agonists, with fewer patients requiring >2 SABA puffs/week (e = 7.7% p < 0.0001). More patients had well-controlled asthma 1-year post-MP-AzeFlu initiation (e = 4.1%; p = 0.0037), despite a reduction in inhaled corticosteroids (e = 4.8%; p = 0.0078). **CONCLUSIONS:** This study provides the first direct evidence of the beneficial effect of MP-AzeFlu on asthma outcomes in co-morbid patients in primary care in the United Kingdom. **TRIAL REGISTRATION:** EUPAS30940. Registered August 13, 2019.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.084 **Quartil:** 3 **Categoria:** Allergy; Immunology
Posición: Allergy 15/28; Immunology 86/162

Roger A, Malet A, Moreno V, Parra A, Gutiérrez D, Lleonart R, Moreno F, Valero A, **Navarro B**, Hinojosa B, Justicia JL.

Real-life effect of a microcrystalline tyrosine adjuvanted mite immunotherapy in patients with allergic rhinitis.

Immunotherapy. 2020 Jan;12(1):53-62. doi: 10.2217/imt-2019-0205. Epub 2020 Jan 8.

Aim: Evaluate the effectiveness and safety of immunotherapy with Acarovac Plus® in a 1-year prospective multicentered real-life study. **Methods:** A total of 118 adults with allergic rhinitis sensitized to Dermatophagoides received subcutaneous immunotherapy with Acarovac Plus. Treatment outcomes were evaluated at baseline, 6 months and 1 year after treatment initiation. Primary end point was the evolution of the combined symptom and medication score. Secondary end points included other effectiveness outcomes and measurement of product tolerability. **Results:** Acarovac Plus induced significant improvements in primary and secondary end points after 6 months compared with baseline. These differences persisted after 1 year of treatment (p < 0.001; baseline vs 1 year): combined symptom and medication score (1.60 vs 0.79). No serious adverse events were recorded. **Conclusion:** Acarovac Plus for 1 year was effective and well tolerated in a real-life setting.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.196 **Quartil:** 3 **Categoria:** Immunology **Posición:** 83/162

ANATOMIA PATOLOGICA

Nº Articulos indexados: 2 **Factor de Impacto total:** 1.667 **Factor impacto medio x artículo:** 0.834

Civit JJR, Godoy D, Conde A, Arencibia J, Medel R, Limeres MA,Miguel IS, Marín JD, Aguilar Y, **Tresserra F**, Medina F.

Orbital histiocytosis with systemic involvement: A case with complex affiliations.

Saudi J Ophthalmol. 2021 Jul 29;34(4):319-323. doi: 10.4103/1319-4534.322613. eCollection 2020 Oct-Dec.

A 70-year-old male presented with orbital masses affecting the muscular cone. His past medical history was notable for diabetes mellitus, ischemic cardiopathy, sleep-apnea syndrome, and multiple serous effusions. The first biopsy specimen of affected orbital tissue revealed fibrohistiocytic infiltration resembling xanthogranuloma or Erdheim-Chester disease (ECD). An ulterior biopsy of affected orbital tissue showed lymphocyte emperipolesis with immunopositivity for CD68 and S100 but negative staining for CD1a marker, strongly suggesting Rosai-Dorfman disease (RDD). Afterward, pericardium and peritoneal effusions resulted in constrictive pericarditis and retroperitoneal fibrosis, respectively. The absence of distinctive clinical features made the diagnosis especially challenging. Attempts to control the disease using corticosteroids, radiation, orbital surgery, and interferon were unsuccessful. Aggressive treatments such as chemotherapy were not considered appropriate due to the general deterioration of our patient. Although the possibility of two concurrent diseases (e.g., systemic ECD and orbital RDD) cannot be discarded, we interpreted the orbital findings as likely due to RDD, and the entire condition of our patient as an extranodal RDD with atypical clinicopathological findings and outcome.

Indexado en: PubMed

Mayo-de-Las-Casas C, Velasco A, Sanchez D, Martínez-Bueno A, Garzón-Ibáñez M, Gatius S, Ruiz-Miró M, Gonzalez-Tallada X, Llordella I, **Tresserra F**, Rodríguez S, Aldeguer E, Roman-Canal B, Bertran-Alamillo J, García-Peláez B, Rosell R, Molina-Vila MA, Matias-Guiu X.

Detection of somatic mutations in peritoneal lavages and plasma of endometrial cancer patients: A proof-of-concept study.

Int J Cancer. 2020 Jul 1;147(1):277-284. doi: 10.1002/ijc.32872. Epub 2020 Feb 17.

Endometrial cancer (EC) is the most common gynecologic malignancy in developed countries. Although most patients are diagnosed at early stages, 15-20% will relapse despite local treatment. Presently, there are no reliable markers to identify patients with worse outcomes who may benefit from adjuvant treatments, such as chemotherapy, and liquid biopsies may be of use in this setting. Peritoneal lavages are systematically performed during endometrial surgery but little data are available about their potential as liquid biopsies. We analyzed KRAS and PIK3CA mutations in paired surgical biopsies, blood and cytology-negative peritoneal lavages in a cohort of 50 EC patients. Surgical biopsies were submitted to next-generation sequencing (NGS) while circulating-free DNA (cfDNA) purified from plasma and peritoneal lavages was analyzed for KRAS and PIK3CA hotspot mutations using a sensitive quantitative polymerase chain reaction (PCR) assay. NGS of biopsies revealed KRAS, PIK3CA or concomitant KRAS + PIK3CA mutations in 33/50 (66%) EC patients. Of those, 19 cases carried hotspot mutations. Quantitative PCR revealed KRAS and/or PIK3CA mutations in the lavages of 9/19 (47.4%) hotspot EC patients. In contrast, only 2/19 (10.5%) blood samples from hotspot EC patients were positive. Mutations found in cfDNA consistently matched those in paired biopsies. One of the two patients positive in plasma and lavage died in less than 6 months. In conclusion, mutational analysis in peritoneal lavages and blood from early stage EC is feasible. Further studies are warranted to determine if it might help to identify

patients with worse prognosis. Human genes discussed: KRAS, KRAS proto-oncogene, GTPase; PIK3CA, phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 1.667 **Quartil:** 4 **Categoria:** Allergy; Immunology
Posición: Allergy 24/28; Immunology 150/162

ANESTESIOLOGIA

Nº Articulos indexados: 2 **Factor de Impacto total:** n/a **Factor impacto medio x artículo:** n/a

López AM, Belda I, Bermejo S, Parra L, Áñez C, **Borràs R**, Sabaté S, **Carbonell N**, Marco G, Pérez J, Massó E, Soto JM, Boza E, Gil JM, Serra M, Tejedor V, Tejedor A, Roza J, Plaza A, Tena B, Valero R; Secció de via aèria (SEVA) de la SCARTD; Listado de autores y miembros de la Secció de via aèria SEVA de la SCARTD.

Recommendations for the evaluation and management of the anticipated and non-anticipated difficult airway of the Societat Catalana d'Anestesiologia, Reanimació i Terapèutica del Dolor, based on the adaptation of clinical practice guidelines and expert consensus.

Rev Esp Anestesiol Reanim (Engl Ed). 2020 Jun-Jul;67(6):325-342. doi: 10.1016/j.redar.2019.11.011. Epub 2020 May 27.

[Article in English, Spanish]

The Airway Division of the Catalan Society of Anaesthesiology, Intensive Care and Pain Management (SCARTD) presents its latest guidelines for the evaluation and management of the difficult airway. This update includes the technical advances and changes observed in clinical practice since publication of the first edition of the guidelines in 2008. The recommendations were defined by a consensus of experts from the 19 participating hospitals, and were adapted from 5 recently published international guidelines following an in-depth analysis and systematic comparison of their recommendations. The final document was sent to the members of SCARTD for evaluation, and was reviewed by 11 independent experts. The recommendations, therefore, are supported by the latest scientific evidence and endorsed by professionals in the field. This edition develops the definition of the difficult airway, including all airway management techniques, and places emphasis on evaluating and classifying the airway into 3 categories according to the anticipated degree of difficulty and additional safety considerations in order to plan the management strategy. Pre-management planning, in terms of preparing patients and resources and optimising communication and interaction between all professionals involved, plays a pivotal role in all the scenarios addressed. The guidelines reflect the increased presence of video laryngoscopes and second-generation devices in our setting, and promotes their routine use in intubation and their prompt use in cases of unanticipated difficult airway. They also address the increased use of ultrasound imaging as an aid to evaluation and decision-making. New scenarios have also been included, such as the risk of bronchoaspiration and difficult extubation Finally, the document outlines the training and continuing professional development programmes required to guarantee effective and safe implementation of the guidelines.

Indexado en: PubMed

Subirà González A, **Fernández Morales M**, **Sánchez Royo E**, **Boliart de San Félix Y**, Vila Lolo C.

Propofol infusion syndrome; are high doses always required?

Rev Esp Anestesiol Reanim (Engl Ed). 2020 Mar;67(3):163-166. doi: 10.1016/j.redar.2020.01.002. Epub 2020 Feb 25. [Article in English, Spanish]

Propofol infusion syndrome is a rare condition that mainly affects critically ill patients who receive high doses of this hypnotic for a long time. We describe the case of a patient who presented hepatotoxicity in the immediate postoperative period of two surgeries in which she had received conventional doses of propofol for a short period of time. After studying the patient and monitoring her evolution, we arrived at a differential diagnosis of propofol infusion syndrome due to increased susceptibility. This syndrome should be considered in patients presenting hepatotoxicity in the immediate postoperative period, even when low doses of propofol have been administered.

Indexado en: PubMed

DIGESTIVO

Nº Articulos indexados: 3 **Factor de Impacto total:** 12.179 **Factor impacto medio x artículo:** 4.060

Espinet Coll E, Turró Arau R, Orive Calzada A, Dolz Abadía C, García Ruiz de Gordejuela A, Sánchez Yagüe A, Nebreda Durán J, Galvao Neto M, López-Nava Breviere G, Mata Bilbao A, Alcalde Vargas A, Abad Belando R, Del Pozo-García AJ, Esteban López-Jamar JM, Pujol Gebelli J, Torres García AJ, Ramírez Felipe JA, Muñoz Navas M.
Main prophylactic measures in bariatric endoscopy. Spanish Expert Recommendations Guideline.
Rev Esp Enferm Dig. 2020 Jun;112(6):491-500. doi: 10.17235/reed.2020.6970/2020.

Bariatric endoscopy (BE) encompasses a number of techniques -some consolidated, some under development- aiming to contribute to the management of obese patients and their associated metabolic diseases as a complement to dietary and lifestyle changes. To date different intragastric balloon models, suture systems, aspiration methods, substance injections and both gastric and duodenal malabsorptive devices have been developed, as well as endoscopic procedures for the revision of bariatric surgery. Their ongoing evolution conditions a gradual increase in the quantity and quality of scientific evidence about their effectiveness and safety. Despite this, scientific evidence remains inadequate to establish strong grades of recommendation allowing a unified perspective on prophylaxis in BE. This dearth of data conditions leads, in daily practice, to frequently extrapolate the measures that are used in bariatric surgery (BS) and/or in general therapeutic endoscopy. In this respect, this special article is intended to reach a consensus on the most common prophylactic measures we should apply in BE. The methodological design of this document was developed while attempting to comply with the following 5 phases: Phase 1: delimitation and scope of objectives, according to the GRADE Clinical Guidelines. Phase 2: setup of the Clinical Guide-developing Group: national experts, members of the Grupo Español de Endoscopia Bariátrica (GETTEMO, SEED), SEPD, and SECO, selecting 2 authors for each section. Phase 3: clinical question form (PICO): patients, intervention, comparison, outcomes. Phase 4: literature assessment and synthesis. Search for evidence and elaboration of recommendations. Based on the Oxford Centre for Evidence-Based Medicine classification, most evidence in this article will correspond to level 5 (expert opinions without explicit critical appraisal) and grade of recommendation C (favorable yet inconclusive recommendation) or D (inconclusive or inconsistent studies). Phase 5: External review by experts. We hope that these basic preventive measures will be of interest for daily practice, and may help prevent medical and/or legal conflicts for the benefit of patients, physicians, and BE in general.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.086 **Quartil:** 4 **Categoria:** Gastroenterology & Hepatology **Posición:** 84/92

Lopez-Nava G, Asokkumar R, Bautista-Castaño I, Laster J, Negi A, Fook-Chong S, Nebreda Duran J, **Espinett Coll E**, Gebelli JP, Garcia Ruiz de Gordejuela A.
Endoscopic sleeve gastroplasty, laparoscopic sleeve gastrectomy, and laparoscopic greater curve plication: do they differ at 2 years?
Endoscopy. 2021 Mar;53(3):235-243. doi: 10.1055/a-1224-7231. Epub 2020 Jul 22.

Comment in
Endoscopy. 2021 Mar;53(3):244-245.
Endoscopy. 2021 Mar;53(3):v12.
Endoscopy. 2021 Mar;53(3):339.
Endoscopy. 2021 Mar;53(3):340.

Endoscopic sleeve gastroplasty (ESG) is an effective treatment option for obesity. However, data comparing its efficacy to bariatric surgery are scarce. We aimed to compare the effectiveness and safety of ESG with laparoscopic sleeve gastrectomy (LSG) and laparoscopic greater curve plication (LGCP) at 2 years. **METHODS :**

We reviewed 353 patient records and identified 296 patients who underwent ESG (n = 199), LSG (n = 61), and LGCP (n = 36) at four centers in Spain between 2014 and 2016. We compared their total body weight loss (%TBWL) and safety over 2 years. A linear mixed model (LMM) was used to analyze repeated measures of weight loss outcomes at 6, 12, 18, and 24 months to compare the three procedures. **RESULTS :** Among the 296 patients, 210 (ESG 135, LSG 43, LGCP 32) completed 1 year of follow-up and 102 (ESG 46, LSG 34, LGCP 22) reached 2 years. Their mean (standard deviation [SD]) body mass index (BMI) was 39.6 (4.8) kg/m2. There were no differences in age, sex, or BMI between the groups. In LMM analysis, adjusting for age, sex, and initial BMI, we found ESG had a significantly lower TBWL, %TBWL, and BMI decline compared with LSG and LGCP at all time points ($P = 0.001$). The adjusted mean %TBWL at 2 years for ESG, LSG, and LGCP were 18.5 %, 28.3 %, and 26.9 %, respectively. However, ESG, when compared with LSG and LGCP, had a shorter inpatient stay (1 vs. 3 vs. 3 days; $P < 0.001$) and lower complication rate (0.5 % vs. 4.9 % vs. 8.3 %; $P = 0.006$). **CONCLUSION :** All three procedures induced significant weight loss in obese patients. Although the weight loss was lower with ESG compared with other techniques, it displayed a better safety profile and shorter hospital stay.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 10.093 **Quartil:** 1 **Categoria:** Gastroenterology & Hepatology; Surgery
Posición: Gastroenterology & Hepatology 11/92; Surgery 5/211

Subirà González A, Fernández Morales M, Sánchez Royo E, Boliart de San Félix Y, **Vila Lolo C**.
Propofol infusion syndrome; are high doses always required?
Rev Esp Anestesiol Reanim (Engl Ed). 2020 Mar;67(3):163-166. doi: 10.1016/j.redar.2020.01.002. Epub 2020 Feb 25.[Article in English, Spanish]

Propofol infusion syndrome is a rare condition that mainly affects critically ill patients who receive high doses of this hypnotic for a long time. We describe the case of a patient who presented hepatotoxicity in the immediate postoperative period of two surgeries in which she had received conventional doses of propofol for a short period of time. After studying the patient and monitoring her evolution, we arrived at a differential diagnosis of propofol infusion syndrome due to increased susceptibility. This syndrome should be considered in patients presenting hepatotoxicity in the immediate postoperative period, even when low doses of propofol have been administered.

Indexado en: PubMed

ENDOCRINOLOGIA Y NUTRICION

Nº Articulos indexados: 1 **Factor de Impacto total:** 4.280 **Factor impacto medio x artículo:** 4.280

Sesmilo G, Prats P, Garcia S, Rodríguez I, Rodríguez-Melcón A, **Berges I**, Serra B.
First-trimester fasting glycemia as a predictor of gestational diabetes (GDM) and adverse pregnancy outcomes.
Acta Diabetol. 2020 Jun;57(6):697-703. doi: 10.1007/s00592-019-01474-8. Epub 2020 Jan 27.

AIMS: Studies to prevent gestational diabetes (GDM) have shown the best results when lifestyle measures have been applied early in pregnancy. We aimed to investigate whether first-trimester fasting plasma glucose (FPG) could predict GDM risk and adverse pregnancy outcomes. **METHODS:** A retrospective analysis of prospectively collected data from singleton pregnancies who were attended at our hospital between 2008 and 2018 (n = 27,198) was performed. We included patients with a recorded first-trimester FPG and complete pregnancy data (n = 6845). Patients under 18, with pregestational diabetes or reproductive techniques, were excluded. irst-trimester FPG was evaluated as a continuous variable and divided into quartiles. GDM was diagnosed by NDDG criteria. The relationship between first- and second-trimester glucose > 92 mg/dL was also investigated. The relationship between FPG and pregnancy outcomes was assessed in 6150 patients who did not have GDM. **RESULTS:** Maternal age was 34.2 ± 3.9 years, BMI 23.1 ± 3.7 kg/m2 and mean FPG 83.0 ± 7.3 mg/dL. Glucose quartiles were: ≤ 78, 79-83, 84-87 and ≥ 88 mg/dL. First-trimester FPG predicted the risk of GDM (7%, 8%, 10.2% and 16% in each quartile, $p < 0.001$) and the risk of second-trimester glucose > 92 mg/dL (2.6%, 3.8%, 6.3% and 11.4% in each quartile, $p < 0.001$). FPG was significantly associated with LGA (8.2%, 9.3%, 10% and 11.7% in each quartile, $p = 0.011$) but not with other obstetrical outcomes. In a multivariate analysis including age, BMI, tobacco use, number of pregnancies and weight gained during pregnancy, first-trimester FPG was an independent predictor of LGA.**CONCLUSIONS:** First-trimester FPG is an early marker of GDM and LGA.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.280 **Quartil:** 2 **Categoria:** Endocrinology & Metabolism **Posición:** 62/146

HEMATOLOGÍA

Nº Articulos indexados: 1 **Factor de Impacto total:** 1.276 **Factor impacto medio x artículo:** 1.276

Santamaría A.
The association between coagulopathies such as thrombophilia or rare bleeding disorders with the development of gestational vascular complications.
Blood Coagul Fibrinolysis. 2020 Dec 1;31(1S):S25-S27. doi: 10.1097/MBC.0000000000000987.

The association between coagulopathies, more specifically thrombophilia, and the development of gestational vascular complications was established in the 1990s. Ever since, huge efforts have been invested into gaining a better understanding of the role played by clotting factors, both prothrombotic and hemorrhagic, in those complications, not least because hypertensive disorders and venous thromboembolism are among the most common causes of maternal mortality in the Western world.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 1.276 **Quartil:** 4 **Categoria:** Hematology **Posición:** 72/76

ICATME – INSTITUT CATALÀ DE TRAUMATOLOGIA i MEDICINA DE L'ESPORT

Nº Articulos indexados: 26 **Factor de Impacto total:** 137.662 **Factor impacto medio x artículo:** 5.295

Barrera-Ochoa S, **Martin-Dominguez LA**, **Campillo-Recio D**, **Alabau-Rodriguez S**, **Mir-Bullo X**, Soldado F.
Are Vascularized Periosteal Flaps Useful for the Treatment of Difficult Scaphoid Nonunion in Adults? A Prospective Cohort Study of 32 Patients.
J Hand Surg Am. 2020 Oct;45(10):924-936. doi: 10.1016/j.jhsa.2020.06.013. Epub 2020 Aug 6.

PURPOSE: To evaluate clinical and radiological outcomes after surgical treatment of difficult scaphoid nonunion in adults with a vascularized thumb metacarpal periosteal pedicled flap (VTMPF). **MATERIALS AND METHODS:** Thirty-two patients at least 18 years old, with scaphoid nonunion and characteristics associated with a poor prognosis, who underwent a VTMPF procedure, were included in this retrospective cohort study with a mean follow-up of 17 months. Factors associated with a poor prognosis were a delay in presentation of over 5 years, the presence of avascular necrosis, and previous nonunion surgery. All patients had at least 1 poor prognostic factor and 25% had 2 or more. **RESULTS:** In 30 men and 2 women, the mean age was 36 years (range, 19-56 years). There were 11 type D3 nonunions (Herbert classification) and 15 type D4. Five patients had delayed presentation of over 5 years. Fourteen patients had previously undergone an unsuccessful surgical attempt to treat their nonunion. The patients experienced no postoperative complications. Overall union rate was 97% (31 of 32 patients), with 72% cross-sectional trabecular percentage bridging at 12 weeks. Pain subsided after surgery and patients experienced improvements in both their Quick Disabilities of the Arm, Shoulder, and Hand (QuickDASH) and Modified Mayo Wrist Score (MMWS). Overall 41% and 42% gains in strength and wrist motion, relative to the contralateral normal side, were observed. At final follow-up, there were no differences between the treated and the untreated (healthy) hands, in terms of wrist range of motion, grip, or pinch strength. **CONCLUSIONS:** In this study, the use of VTMPF for difficult scaphoid nonunion in adults was associated with good general outcomes.**TYPE OF STUDY/LEVEL OF EVIDENCE:** Therapeutic IV.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.230 **Quartil:** 3 **Categoria:** Orthopedics; Surgery
Posición: Orthopedics 47/82; Surgery 117/211

Barrera-Ochoa S, **Alabau-Rodriguez S**, **Campillo-Recio D**, **Esteban-Feliu I**, **Mir-Bullo X**, Soldado F.
Retrograde intramedullary headless compression screws for treatment of extra-articular thumb metacarpal base fractures.
J Hand Surg Eur Vol. 2020 Jul;45(6):588-594. doi: 10.1177/1753193420924215. Epub 2020 May 12.

The purpose of the study was to evaluate clinical and radiological outcomes of extra-articular fractures involving the base of the thumb metacarpal treated with fixation using a retrograde intramedullary cannulated headless screw. A review of prospectively collected data was conducted on a consecutive series of 13 patients, treated with headless screw fixation for acute displaced fractures. All workers resumed full duties, while non-workers returned to unlimited leisure activities within a mean of 42 days. At 3 months follow-up, all range of motion measurements in the treated and untreated thumb were similar. Mean visual analogue pain score was 0.8 at rest and 1.4 during exercise and mean Quick Disabilities of the Arm, Shoulder, and Hand score was 5. All patients achieved radiographic union by 8 weeks. We conclude that the intramedullary headless screw fixation is safe and reliable for base of thumb metacarpal fractures, allowing for early postoperative motion and good functional recovery. Level of evidence: IV.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.688 **Quartil:** 2 **Categoria:** Orthopedics; Surgery
Posición: Orthopedics 36/82; Surgery 93/211

Bozzi F, **Alabau-Rodriguez S**, **Barrera-Ochoa S**, Ateschrang A, Schreiner AJ, **Monllau JC**, **Perelli S**.
Suprascapular Neuropathy around the Shoulder: A Current Concept Review.
J Clin Med. 2020 Jul 22;9(8):2331. doi: 10.3390/jcm9082331.

Suprascapular neuropathy is an uncommon but increasingly recognized cause of shoulder pain and dysfunction due to nerve entrapment. The aim of this review is to summarize some important aspects of this shoulder pathology. An extensive research was performed on PubMed and Clinical Key. The goal was to collect all the anatomical, biomechanical and clinical studies to conduct an extensive overview of the issue. Attention was focused on researching the state of art of the diagnosis and treatment. A total of 59 studies were found suitable and included. This condition is more frequently diagnosed in over-head athletes or patients with massive rotator cuff tears. Diagnosis may be complex, whereas its treatment is safe, and it has a great success rate. Prompt diagnosis is crucial as chronic conditions have worse outcomes compared to acute lesions. Proper instrumental evaluation and imaging are essential. Dynamic compression must initially be treated non-operatively. If there is no improvement, surgical release should be considered. On the other hand, soft tissue lesions may first be treated non-operatively. However, surgical treatment by arthroscopic means is advisable when possible as it represents the gold standard therapy. Other concomitant shoulder lesions must be recognized and treated accordingly.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.242 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 39/167

Campillo-Recio D, **Ibañez M**, **Jimeno-Torres E**, **Comas-Aguilar M**, **Mendez-Gil A**, **Jimeno-Torres JM**, **Alberti-Fito G**.
Two-Portal Endoscopic Plantar Fascia Release: Step-by-Step Surgical Technique.
Arthrosc Tech. 2020 Dec 19;10(1):e15-e20. doi: 10.1016/j.eats.2020.09.002. eCollection 2021 Jan.

Plantar fasciitis is a common condition of heel pain with a lifetime incidence up to 10%. For this entity, conservative treatment is considered the gold standard, involving non-steroidal anti-inflammatory drugs, stretching exercises of the plantar fascia, activity modifications, ice, and insoles. When patients do not respond to these treatments, partial or total plantar fascia release has been the mainstay of treatment, with success rates of approximately 70% to 90%. For this purpose, several techniques have been described, including open, percutaneous, and endoscopic release. The objective of this Technical Note is to describe the nonassisted 2-portal endoscopic plantar fascia release in a patient with recalcitrant plantar fasciitis.

Indexado en: PubMed

Erivan R, Soleihavoup M, Villatte G, **Perez Prieto D**, Descamps S, Boisgard S.
Poor results of functional treatment of Garden-1 femoral neck fracture in dependent patients.
Orthop Traumatol Surg Res. 2020 Jun;106(4):601-605. doi: 10.1016/j.otsr.2019.09.027. Epub 2019 Dec 18.

INTRODUCTION: Variable results are reported after functional treatment for Garden-1 femoral neck fracture, with no definite factors for failure, particularly in the absence of selection for risk. It seems well indicated in frail and/or dependent patients with comorbidities, but this has not been specifically assessed, and failure is frequent in this target population. We therefore performed a retrospective study to: (1) assess results of

functional treatment for Garden-1 impacted femoral neck fracture in dependent patients, and (2) analyze survival in terms of complications and death, and related factors. **HYPOTHESIS:** Functional treatment for Garden-1 fracture in dependent patients gives poor results, with a high rate of surgical revision. **MATERIAL AND METHODS:** A retrospective analysis was made of Garden-1 femoral neck fracture in dependent patients (Parker score≤5), with a minimum 2 years' follow-up. One hundred and forty-six patients were included: mean age, 81.3±8.7 years (range, 55.7-99.6 years). The endpoint was survival in terms of complications requiring surgery, secondary displacement requiring surgery, excessive pain requiring surgery, non-union or femoral head osteonecrosis. Secondary endpoints were overall mortality and mortality related to complications. **RESULTS:** Mean follow-up was 4.2±2.6 years (range, 2.0-10.3 years). Ninety-one of the 146 patients (62.3%) required secondary surgery: 79 (54.1%) early (<3 months post-fracture), with 77 (52.7%) secondary displacements and 2 cases (1.4%) of excessive pain; and 12 (8.2%) late (162.2±132.3 days; range, 90-454 days), with 8 (5.4%) non-unions and 4 (2.7%) osteonecroses. Mean time to onset of secondary displacement was 13.6±11.8 days (range, 0-67.0 days). Two-year survival in terms of revision surgery was 34.1% [95% CI: 26.0-42.4]. At last follow-up, 91 patients (62.3%) had died; 2-year survival in terms of death was 69.9% [95% CI: 62.4-77.3]. Survival analysis in terms of complications revealed greater mortality in absence of complications: 42 of the 55 patients (76.3%) without complications requiring surgery died, versus 49 of the 91 (53.8%) with complications requiring surgery (p=0.012); relative risk of death in absence of complications requiring surgery was 1.42 [95% CI: 1.33-5.77]. **DISCUSSION:** Functional treatment for Garden-1 fracture in dependent patients gave poor short- and medium-term results. Surgery is therefore recommended in this specific population; the present findings should improve survival. **LEVEL OF EVIDENCE:** IV, retrospective study.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.256 **Quartil:** 3 **Categoria:** Orthopedics; Surgery
Posición: Orthopedics 45/82; Surgery 115/211

Chahla J, Kunze KN, LaPrade RF, Getgood A, Cohen M, **Gelber P**, Barenius B, Pujol N, Leyes M, Akoto R, Fritsch B, Margheritini F, Rips L, Kautzner J, Duthon V, Togninalli D, Giacamo Z, Graveleau N, Zaffagnini S, Engbretsen L, Lind M, Maestu R, Von Bormann R, Brown C, Villascusa S, **Monllau JC**, Ferrer G, Menetrey J, Hantes M, Parker D, Lording T, Samuelsson K, Weiler A, Uchida S, Frosch KH, Robinson J.

The posteromedial corner of the knee: an international expert consensus statement on diagnosis, classification, treatment, and rehabilitation.

Knee Surg Sports Traumatol Arthrosc. 2021 Sep;29(9):2976-2986. doi: 10.1007/s00167-020-06336-3. Epub 2020 Oct 26.

PURPOSE: To establish recommendations for diagnosis, classification, treatment, and rehabilitation of posteromedial corner (PMC) knee injuries using a modified Delphi technique. **METHODS:** A list of statements concerning the diagnosis, classification, treatment and rehabilitation of PMC injuries was created by a working group of four individuals. Using a modified Delphi technique, a group of 35 surgeons with expertise in PMC injuries was surveyed, on three occasions, to establish consensus on the inclusion or exclusion of each statement. Experts were encouraged to propose further suggestions or modifications following each round. Pre-defined criteria were used to refine item lists after each survey. The final document included statements reaching consensus in round three. **RESULTS:** Thirty-five experts had a 100% response rate for all three rounds. A total of 53 items achieved over 75% consensus. The overall rate of consensus was 82.8%. Statements pertaining to PMC reconstruction and those regarding the treatment of combined cruciate and PMC injuries reached 100% consensus. Consensus was reached for 85.7% of the statements on anatomy of the PMC, 90% for those relating to diagnosis, 70% relating to classification, 64.3% relating to the treatment of isolated PMC injuries, and 83.3% relating to rehabilitation after PMC reconstruction. **CONCLUSION:** A modified Delphi technique was applied to generate an expert consensus statement concerning the diagnosis, classification,

treatment, and rehabilitation practices for PMC injuries of the knee with high levels of expert agreement. Though the majority of statements pertaining to anatomy, diagnosis, and rehabilitation reached consensus, there remains inconsistency as to the optimal approach to treating isolated PMC injuries. Additionally, there is a need for improved PMC injury classification. **LEVEL OF EVIDENCE:** Level V.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.342 **Quartil:** 1 **Categoria:** Orthopedics; Sports Sciences; Surgery
Posición: Orthopedics 13/82; Sports Sciences 16/88; Surgery 35/211

Erivan R, Lopez-Chicon P, Fariñas O, **Perez Prieto D**, **Grau S**, Boisgard S, **Monllau JC**, Vilarrodona A.
Which type of bone releases the most vancomycin? Comparison of spongious bone, cortical powder and cortico-spongious bone.
Cell Tissue Bank. 2020 Mar;21(1):131-137. doi: 10.1007/s10561-019-09806-2. Epub 2019 Dec 21.

Bone infections can be challenging to treat and can lead to several surgeries and relapses. When a graft is needed, cavitary bone loss can be grafted with cancellous or cortical bone. Both can be used for grafting. However, the antibiotic releasing capacity of these grafts has not been compared. Which type of bone is best at releasing the most antibiotic has not been well established. The aim of this study was to determine which type of bone is best for antibiotic release when the bone is suffused with antibiotics by the surgeon. The hypothesis is that there would be a difference between the type of bone tested due to different release capacities of cortical and cancellous bone. This was an experimental study. Cortical spongy bone in chips, Spongy bone in chips and demineralized cortical bone powder were compared. For each type of bone, 5 samples were tested. Processed and decontaminated grafts were freeze-dried to be kept at room temperature. The primary endpoint was the amount of vancomycin released by the graft as it affects the concentration of antibiotic around the graft in clinical practice. The procedure for the study consisted of full graft immersion in a vancomycin solution. Then, the liquid was removed with aspiration. In order to measure the quantity of antibiotic released, the bone was put into distilled water in agitation in a heated rocker at 37 °C. After 30 min of soaking, 1 mL of the liquid was removed. The same extraction process was also carried out after 60 min soaking, 2 h, 3 h, 24 h, and 48 h. No differences were found between each type of bone relative to the concentration of vancomycin released at each time of the assessment. There was a significant difference in the weight of the bone with a higher weight for the cortical powder (1.793 g) versus cortical spongy bone and spongy bone (1.154 g and 1.013 g) with a p value < 0.0001. A significant difference was seen in the weight of the bone with vancomycin after the aspiration of the liquid with 3.026 g for cortical powder, 2.140 g and 2.049 g for the cortical spongy bone and the spongy bone with a p value < 0.0001. In daily clinical practice, one can use cancellous bone, cortico-cancellous bone or cortical powder in order to add vancomycin to a bone graft. Our results show the release kinetics of the soaked allografts. With a maximum of 14 mg/mL in the first minutes and a rapid decrease it shows a pattern comparable to antibiotic loaded bone cement. The method used appears favourable for prophylactic use, protecting the graft against contamination at implantation, but is not sufficient for treating chronic bone infection. **LEVEL OF EVIDENCE:** V.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 1.522 **Quartil:** 4 **Categoria:** Cell Biology; Engineering Biomedical
Posición: Cell Biology 186/195; Engineering Biomedical 78/89

Erquicia JI, **Ibañez M**, **Espinoza-Von Bischhoffshausen R**, **Acuña G**, Lopez XP, **Monllau JC**.
Modification of the Hybrid Anatomic Technique for Anterior Cruciate Ligament Reconstruction in Pediatric Patients.
Arthrosc Tech. 2020 Dec 19;10(1):e37-e42. doi: 10.1016/j.eats.2020.09.007. eCollection 2021 Jan.

The incidence of anterior cruciate ligament (ACL) lesions with Tanner stage ≤4 has been increasing in children. To stabilize the knee, different surgical techniques have been developed for ACL reconstruction in the pediatric population. The use of a hybrid anatomic technique, intra-epiphyseal in the femur and transphysis in the tibia, has been recommended as the technique of choice to reconstruct the ACL in these patients. Despite the favorable results, this technique is not exempt from complications. The aim of this study was to present a simple and reproducible modification of the hybrid anatomic technique for ACL reconstruction in pediatric patients.

Indexado en: PubMed

García de Frutos A, González-Tartière P, Coll Bonet R, **Ubierna Garcés MT**, Del Arco Churruca A, Rivas García A, Matamalas Adrover A, Saló Bru G, Velazquez JJ, **Vila-Canet G**, García-Lopez J, Vives J, Codinach M, Rodriguez L, Bagó Granell J, **Càceres Palou E**.

Randomized clinical trial: expanded autologous bone marrow mesenchymal cells combined with allogeneic bone tissue, compared with autologous iliac crest graft in lumbar fusion surgery.

Spine J. 2020 Dec;20(12):1899-1910. doi: 10.1016/j.spinee.2020.07.014. Epub 2020 Jul 28.

BACKGROUND CONTEXT: Although autogenous iliac crest bone graft (AICBG) is considered the gold-standard graft material for spinal fusion, new bone substitutes are being developed to avoid associated complications and disadvantages. By combining autologous bone marrow mesenchymal stromal cells (MSCs) expanded ex vivo and allogenic cancellous bone graft, we obtain a tissue-engineered product that is osteoconductive and potentially more osteogenic and osteoinductive than AICBG, owing to the higher concentration of MSCs. **PURPOSE:** This study aimed to evaluate the feasibility and safety of implanting a tissue-engineered product consisting of expanded bone marrow MSCs loaded onto allograft bone (MSC+allograft) for spinal fusion in degenerative spine disease, as well as to assess its clinical and radiological efficacy. **STUDY DESIGN/SETTING:** A prospective, multicenter, open-label, blinded-reader, randomized, parallel, single-dose phase I-II clinical trial. **PATIENT SAMPLE:** A total of 73 adult patients from 5 hospitals, with Meyerding grade I-II L4-L5 degenerative spondylolisthesis and/or with L4-L5 degenerative disc disease who underwent spinal fusion through transforaminal lumbar interbody fusion (TLIF). **OUTCOME MEASURES:** Spinal fusion was assessed by plain X-ray at 3, 6, and 12 months and by computed tomography (CT) at 6 and 12 months post-treatment. An independent radiologist performed blinded assessments of all images. Clinical outcomes were measured as change from baseline value: visual analog scale for lumbar and sciatic pain at 12 days, 3, 6, and 12 months posttreatment, and Oswestry Disability Index and Short Form-36 at 3, 6, and 12 months posttreatment. **METHODS:** Patients who underwent L4-L5 TLIF were randomized for posterior graft type only, and received either MSC+allograft (the tissue-engineered product, group A) or AICBG (standard graft material, group B). Standard graft material was used for anterior fusion in all patients. Feasibility was measured primarily as the percentage of randomized patients who underwent surgery in each treatment group. Safety was assessed by analyzing treatment-emergent adverse events (AEs) for the full experimental phase and appraising their relationship to the experimental treatment. Outcome measures, both radiological and clinical, were compared between the groups. **RESULTS:** Seventy-three patients were randomized in this study, 36 from the MSC+allograft group and 37 from the AICBG group, and 65 were surgically treated (31 group A, 34 group B). Demographic and comorbidity data showed no difference between groups. Most patients were diagnosed with grade I or II degenerative spondylolisthesis. MSC+allograft was successfully implanted in 86.1% of randomized group A patients. Most patients suffered treatment-emergent AEs during the study (88.2% in group A and 97.1% in group B), none related to the experimental treatment. X-ray-based rates of posterior spinal fusion were significantly higher for the experimental group at 6 months (p=.012) and 12 months (p=.0003). CT-based posterior fusion rates were significantly higher for MSC+allograft at 6 months (92.3% vs 45.7%; p=.0001) and higher, but not significantly, at 12 months (76.5% vs 65.7%; p=.073). CT-based complete response (defined as the presence of both posterior intertransverse fusion and anterior interbody fusion) was significantly higher at 6

months for MSC+allograft than for AICBG (70.6% vs 40%; p=.0038), and remained so at 12 months (70.6% vs 51.4%; p=.023). Clinical results including patient-reported outcomes improved postsurgery, although there were no differences between groups. **CONCLUSIONS:** Compared with the current gold standard, our experimental treatment achieved a higher rate of posterior spinal fusion and radiographic complete response to treatment at 6 and 12 months after surgery. The treatment clearly improved patient quality of life and decreased pain and disability at rates similar to those for the control arm. The safety profile of the tissue-engineered product was also similar to that for the standard material, and no AEs were linked to the product. Procedural AEs did not increase as a result of BM aspiration. The use of expanded bone marrow MSCs combined with cancellous allograft is a feasible and effective technique for spinal fusion, with no product-related AEs found in our study.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.166 **Quartil:** 1 **Categoria:** Orthopedics; Clinical Neurology
Posición: Orthopedics 15/82; Clinical Neurology 64/208

Gelber PE, Barenius B, **Perelli S**.
Role of Alignment and Osteotomy in Meniscal Injuries.
Clin Sports Med. 2020 Jan;39(1):211-221. doi: 10.1016/j.csm.2019.08.006.

Meniscal injuries are common in patients with varus or valgus malalignment, but consensus is lacking as to when surgery should address the meniscal injury only and when it should be combined with an osteotomy. Several factors need to be evaluated to provide the most appropriate treatment in each case. Here we highlight the most relevant literature on the subject and suggest a rationale for surgical treatment.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.182 **Quartil:** 3 **Categoria:** Sport Sciences **Posición:** 57/88

Gelber PE, Drager J, Maheshwer B, Leyes M, Barenius B, Robinson J, Pujol N, Tischer T, Margheritini F, Fritsch B, Frosh KH, Chahla J.
Large variability exists in the management of posterolateral corner injuries in the global surgical community.
Knee Surg Sports Traumatol Arthrosc. 2020 Jul;28(7):2116-2123. doi: 10.1007/s00167-020-05922-9. Epub 2020 Apr

PURPOSE: The management of posterolateral corner (PLC) injuries has significantly evolved over the past 2 decades. The purpose of this study was to determine the current worldview of key concepts on the diagnosis, treatment strategy, and rehabilitation for patients presenting with PLC injuries. **METHODS:** A 12-question multiple-choice online survey was designed to address key questions in the diagnosis, treatment, and rehabilitation of PLC injuries. The survey was distributed to the most important international sports medicine societies worldwide. Clinical agreement was defined as > 80% of agreement in responses and general agreement was defined as > 60% of agreement in responses. **RESULTS:** 975 surgeons completed the survey with 49% from Europe, 21% from North America, 12% from Latin America, 12% from Asia, and smaller percentages from Africa and Oceania. Less than 14% of respondents manage more than ten PCL injuries yearly. Clinical agreement of > 80% was only evident in the use of MRI in the diagnosis of PLC injury. Responses for surgical treatment were split between isometric fibular-based reconstruction techniques and anatomically based fibular and tibial-based reconstructions. A general agreement of > 60% was present for the use of a post-operative brace in the early rehabilitation. **CONCLUSION:** In the global surgical community, there remains a significant variability in the diagnosis, treatment, and postoperative management of PLC injuries. The number of PLC injuries treated yearly

by most surgeons remains low. As global clinical consensus for PLC remains elusive, societies will need to play an important role in the dissemination of evidence-based practices for PLC injuries. **LEVEL OF EVIDENCE:** IV.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.342 **Quartil:** 1 **Categoria:** Orthopedics; Sport Sciences; Suregry
Posición: Orthopedics 13/82; Sport Sciences 16/88; Surgery 35/211

Jimeno Torres E, **Ibañez M**, **Campillo Recio D**, **Alberti Fito G**, **Mendez Gil A**, **Jimeno Torres JM**.
Retrograde Drilling With Tibial Autograft in Osteochondral Lesions of the Talar Dome.
Arthrosc Tech. 2020 Jul 23;9(8):e1155-e1161. doi: 10.1016/j.eats.2020.04.015. eCollection 2020 Aug.

Osteochondral lesions that compromise the ankle are rare, with an incidence between 0.02% and 1.5% according to different series. This location is the third in frequency, after knee and elbow. The location of the osteochondral lesion allows one to infer the producing mechanism. Lateral defects are produced by inversion and dorsiflexion of the ankle (usually anterior, affecting 3 and 6 talar zones), whereas medial defects are produced by plantar flexion, inversion, and internal rotation (most commonly posterior, affecting 4 and 7 talar zones). The injury causes pain associated with weight load, impaired function, limited range of motion, stiffness, blockage, and edema. Early diagnosis of an osteochondral lesion is particularly important because the lack of diagnosis can lead to the evolution of a small and stable lesion in a larger lesion or an unstable fragment, which can result in chronic pain, instability of the joint, and premature osteoarthritis. Multiple therapeutic strategies have been described, including conservative and surgical treatment. The purpose of this Technical Note is to describe arthroscopic-assisted retrograde drilling with tibial autograft procedure for osteochondral lesions of the talar dome.

Indexado en: PubMed

Malinowski K, Kalinowski Ł, Góralczyk A, **Ribas M**, Lund B, Hermanowicz K.
External Snapping Hip Syndrome Endoscopic Treatment: "Fan-like" Technique as a Stepwise, Tailor-made Solution.
Arthrosc Tech. 2020 Oct 1;9(10):e1553-e1557. doi: 10.1016/j.eats.2020.06.017. eCollection 2020 Oct.

Classically, external snapping hip syndrome (ESHS) is considered to be caused by friction of a tight iliotibial band (ITB) over the greater trochanter (GT), which leads to pain, inflammation, and palpable or audible snapping. Surgical treatment remains a gold standard in patients resistant to conservative measures. Many surgical procedures addressing ESHS exist in the literature, but the vast majority of them involve only plasties of the ITB. However, observations led us to the conclusion that friction of the ITB over the GT may not be the only cause of ESHS and other structures like gluteal fascias or an anterior scarred part of gluteus maximus may be involved. The aim of this article is to provide a detailed description and video demonstration of an endoscopic surgical procedure using a "fan-like" cut to treat the ESHS. Its greatest advantage is the ability to gradually increase the extent of surgery based on intraoperative observations. It turns the procedure into a tailor-made surgery, which offers good and reproducible results.

Indexado en: PubMed

Masferrer-Pino A, Saenz-Navarro I, Rojas G, **Perelli S**, **Erquicia J**, **Gelber PE**, **Monllau JC**.
The Menisco-Tibio-Popliteus-Fibular Complex: Anatomic Description of the Structures That Could Avoid Lateral Meniscal Extrusion.
Arthroscopy. 2020 Jul;36(7):1917-1925. doi: 10.1016/j.arthro.2020.03.010. Epub 2020 Mar 19.

Comment in
Arthroscopy. 2020 Jul;36(7):1926-1927.

PURPOSE: To analyze, quantify, and redefine the anatomy of the peripheral attachments of the lateral meniscal body to further understand how the structures might play a part in preventing meniscal extrusion and how it might be applied to surgical techniques. **METHODS:** Ten nonpaired fresh-frozen cadaveric knees without prior injury, a surgical history, or gross anatomic abnormality were included. There were 5 right and 5 left knees, and 50% were from male donors and 50% were from female donors. All the dissections were performed by a group of 3 experts in knee surgery (2 knee surgeons and 1 anatomy professor who oversaw the design of the dissection protocol and guided this protocol). The main peripheral structures associated with the lateral meniscus body were dissected to determine the insertion, size, thickness, and location of the lateral meniscotibial ligament (LMTL), popliteofibular ligament (PFL), and popliteomeniscal ligament (PML). The distance to various landmarks in the lateral compartment was also determined using an electronic caliper. Moreover, a histopathologic study was carried out. **RESULTS:** The average thickness of the LMTL was 0.62 ± 0.18 mm (95% confidence interval [CI], 0.49-0.75 mm); that of the PFL-PML area was 1.05 ± 0.27 mm (95% CI, 0.85-1.24 mm). The anteroposterior distance measured 15.80 ± 4.80 mm (95% CI, 12.40-19.30 mm) for the LMTL and 10.40 ± 1.70 mm (95% CI, 9.21-11.63 mm) for the PFL-PML area. The anteroposterior distance of the whole menisco-tibio-popliteus-fibular complex (MTPFC) was 28.20 ± 4.95 mm (95% CI, 24.70-31.70 mm). The average distance from the MTPFC to the posterior horn of the lateral meniscal root was 29.30 ± 2.29 mm (95% CI, 27.60-30.90 mm), whereas that to the anterior horn was 32.00 ± 4.80 mm (95% CI, 28.60-35.50 mm). The average distance from the tibial insertion of the LMTL to the articular surface was 5.59 ± 1.22 mm (95% CI, 4.72-6.46 mm). In all the anatomic components of the knee, a consistent morphologic and histologic pattern was observed between the fibers of the LMTL, PFL, and PML and those of the lateral meniscal body, making up the proposed MTPFC. **CONCLUSIONS:** A consistent anatomic pattern has been identified between the lateral meniscal body and the LMTL, PFL, and PML, forming an interconnected complex that would seem appropriate to denominate the MTPFC. A precise study of this region and appropriate nomenclature for it could contribute to a better understanding of the mechanism of lateral meniscal injuries at this level, as well as the development of surgical techniques to treat these lesions and prevent extrusion. **CLINICAL RELEVANCE:** This study contributes to the understanding of the lateral meniscal body attachments and the functions they serve. This will lead to improvements in the treatment of lesions in this region, including the development of surgical techniques.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.772 **Quartil:** 1 **Categoria:** Orthopedics; Sports Sciences; Surgery
Posición: Orthopedics 8/82; Sports Sciences 12/88; Surgery 27/211

Morales-Avalos R, Castillo-Escobedo TA, Elizondo-Omaña RE, Del armen Theriot-Giron M, **Perelli S**, Guzmán-López S, Peña-Martínez VM, Vílchez-Cavazos F, **Monllau JC**.
The morphology of the tibial footprint of the anterior cruciate ligament changes with ageing from oval/elliptical to C-shaped.
Knee Surg Sports Traumatol Arthrosc. 2021 Mar;29(3):922-930. doi: 10.1007/s00167-020-06049-7. Epub 2020 May 8.

PURPOSE: To further the current understanding of the modifications of the morphology of the ACL tibial footprint in healthy knees during the ageing process. The hypothesis is that there are differences in the morphology of the ACL tibial footprint between the cadavers of the young and elderly due to a degenerative physiological process that occurs over time. **METHODS:** The tibial footprint of the ACL was dissected in 64 knee specimens of known gender and age. They were divided into four groups by age and gender, setting 50 years of age as the cut-off point. Three observers analyzed the tibial footprint dissections and the shape was described and classified. **RESULTS:** The knees from the cadavers of males older than 50 years of age presented a "C" morphology in 85% of the cases. In the group of males aged less than 50 years, an oval/elliptical morphology was found in 85.7% of the cases. In the group of women over 50 years-old, the "C" morphology was observed in 82.3% of the cases. In women under the age of 50, the oval/elliptical morphology was found in 84.6% of the cases. A significant difference was observed between the prevalence rates of the morphologies of the younger and older groups ($p < 0.001$ for both genders). However, no differences were observed between males and females of the same age group (n.s.). **CONCLUSIONS:** The morphology of the tibial footprint of the ACL presents significant variations with ageing. It can go from an oval/elliptical shape to a "C" shaped morphology. The results of this work make for an advance in the individualization of ACL reconstruction based on the age and the specific morphology of the tibial footprint.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.342 **Quartil:** 1 **Categoria:** Orthopedics; Sports Sciences; Surgery
Posición: Orthopedics 13/82; Sports Sciences 16/88; Surgery 35/211

Perelli S, **Erquicia JI**, Morales Marin C, Bracamonte Salgado WT, **Masferrer-Pino** A, **Perez-Prieto D**, **Monllau JC**.
Central Transpatellar Tendon Portal Is Safe When Used for Anterior Cruciate Ligament Reconstruction.
J Knee Surg. 2020 Sep 8. doi: 10.1055/s-0040-1716380. Online ahead of print.

Central transpatellar tendon portal (CTP) was suggested first for complex meniscal lesion and subsequently for a better femoral footprint view during reconstruction of anterior cruciate ligament (ACL). A comprehensive evaluation of possible consequences of using the CTP performing an ACL reconstruction does not exist. Our hypothesis was that the use of CTP for ACL reconstruction does not lead to a higher rate of complications or clinically evident radiological abnormalities. In total, 141 patients were prospectively evaluated, 69 underwent ACL reconstruction using a standard high medial portal as view portal, and 72 where a CTP was used. Clinical evaluation, Kujala's score, patellar height, and magnetic resonance (MR) abnormalities were evaluated up to 1-year follow-up. Clinical complications were reported in 16 cases with no statistically significant differences between the two groups. The group 2 had significantly more MR abnormalities ($p = 0.048$), but the differences in MR alterations do not have any clinical repercussion even in a sports-active population. No differences were found between the groups in Kujala's score, time to return to work, and sport or patellar height. The overall mean preoperative Caton-Deschamps Index decreased significantly ($p = 0.034$) postoperatively. Postoperative patellar height seems to slightly decrease after ACL reconstruction regardless of the kind of the portals used intraoperatively and the initial patellar height. Nevertheless, this change in patellar height does not influence the postoperative outcome. CTP used for ACL reconstruction does not lead to significative major clinical complications.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.757 **Quartil:** 2 **Categoria:** Orthopedics **Posición:** 33/82

Perelli S, **Erquicia JI**, **Ibañez M**, Daesino G, **Gelber PE**, **Pelfort X**, **Monllau JC**.
Evaluating for Tunnel Convergence in Anterior Cruciate Ligament Reconstruction With Modified Lemaire Tenodesis: What Is the Best Tunnel Angle to Decrease Risk?
Arthroscopy. 2020 Mar;36(3):776-784. doi: 10.1016/j.arthro.2019.08.042. Epub 2019 Dec 18.

PURPOSE: The purpose of this study was to analyze postoperative computed tomography (CT) scan evaluations of patients who had undergone a combined anterior cruciate ligament (ACL) reconstruction and modified Lemaire anterolateral tenodesis (ALT) with femoral fixation through a bony tunnel. **METHODS:** Postoperative CT scans of 52 patients who had undergone combined ACL and ALT were prospectively evaluated. ACL femoral tunnels were drilled through an anteromedial portal in the center of the native footprint. An ALT fixation tunnel was drilled 5 mm proximal to the lateral epicondyle, aiming at an inclination of 30° proximally and 30° anteriorly. Two independent observers evaluated the CT scans measuring any degree of collision, the shortest distance between the tunnels, and the inclination of the ALT tunnels. Measurements were carried out at both the cortical level and on a plane passing 1 cm deeper in the lateral condyle. **RESULTS:** At the level of the cortex, no convergence of the tunnels was identified. In 14 of 52 cases (26.9%), the shortest distance between the tunnels was less than 5 mm. Tunnel collision occurred in 8 of 52 cases (15.4%), and the bone bridge between the tunnels was less than 5 mm in 11 cases (21.1%) when the measurements were made on the deeper plane. When the inclination on the axial plane was less than 15°, a collision always ($P < .001$) occurs. When it was more than 20°, no collision occurred ($P < .001$). No correlation between convergence and the inclination of the ALT tunnel on the coronal plane was detected. **CONCLUSIONS:** To fix a modified Lemaire ALT through a femoral tunnel avoiding any interference with an anatomic femoral ACL tunnel, we recommend that the femoral tunnel be drilled with an inclination of at least 20° anteriorly. **LEVEL OF EVIDENCE:** IV, therapeutic case series.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 1.313 **Quartil:** 1 **Categoria:** Orthopedics; Sports Sciences
Posición: Orthopedics 33/82; Sports Sciences n/a

Ramírez-Núñez L, **Payo-Ollero J**, **Comas M**, **Cárdenas C**, **Bellotti V**, **Astarita E**, **Chacón-Cascio G**, **Ribas M**.
Osteotomia periacetabular en el tratamiento de displasia de cadera mediante tecnica mini-invasiva. Nuestros resultados a medio plazo en 131 casos.
Rev Esp Cir Ortop Traumatol (Engl Ed). 2020 May-Jun;64(3):151-159. doi: 10.1016/j.recot.2020.01.003. Epub 2020 Mar 17.

BACKGROUND AND OBJECTIVE: Periacetabular osteotomy (PAO) is an accepted and worldwide technique recognized for residual dysplasia treatment and even in unstable hips with limited acetabular coverage. The aim of this study is to analyse the functional, radiological and complication results in patients treated with mini-invasive PAO. **MATERIAL AND METHODS:** We performed a retrospective study in which we analysed 131 cases undergoing mini-invasive PAO at our centre. The degree of joint degeneration was evaluated with Tönnis scale, Wiberg angle, acetabular index (AI), anterior coverage angle (AC), joint space, complications and functional outcome with the Non-Arthritic Hip Score (NAHS) were analysed preoperatively and at the end of follow-up. **RESULTS:** The average age was 32.3±9.5 (SD) years, 102 (77.9%) were female and 29 (22.1%) were male. 7.7±2.8 (SD) years follow up. The radiological parameters improved between the pre-surgical phase and the end of follow-up, Wiberg angle+18.5° (18.3° versus 36.8°, 95% CI 17.3 to 19.7), AC angle+13.5° (26.2° versus 39.7°, 95%CI 11.6 to 15.4) and the AI -11.1° (19.5° versus 8.4°; 95%CI -12.1 to -10,1). In addition, the functional results, with the NAHS scale, improved+31.3 points (60.7 pre-surgical versus 92 at the end of follow-up, 95% CI 28.7 to 33.8). The most common complication was transient lateral femoral cutaneous nerve hypoaesthesia in 10 cases (7%). **CONCLUSION:** The mini-invasive PAO approach is a reproducible technique, it allows restoration of acetabular coverage and provides an improvement in functional scales as confirmed by our series.

Indexado en: PubMed

Ramírez-Bermejo E, **Gelber PE**, Pujol N.

Management of acute knee dislocation with vascular injury: the use of the external fixator. A systematic review.

Arch Orthop Trauma Surg. 2022 Feb;142(2):255-261. doi: 10.1007/s00402-020-03684-0. Epub 2020 Nov 22.

INTRODUCTION: Vascular injuries after traumatic knee dislocation pose a potential limb threat for the patient. The benefits of external fixation have been described by many authors. However, the usefulness of the external fixator during acute management of knee dislocations with vascular injuries is a controversial aspect that has no consensus in the literature. The purpose of the present study was to provide data from the current literature on the utility of the external fixator and to investigate the percentage of knee dislocations with vascular injuries treated with an external fixator, the timing between external fixator and vascular repair, and the total time of external fixator. **MATERIAL AND METHODS:** The present systematic review was conducted according to the PRISMA checklist. MEDLINE (Pubmed), Web of Science, and SCOPUS databases were searched for articles from 1 January 2000 to 6 February 2019. Studies reporting outcomes of treatment of knee dislocations with vascular injuries were included. Exclusion criteria included studies investigating chronic knee dislocations, knee arthroplasties, editorials, case reports, and expert opinions. Two authors independently extracted data and appraised the quality of evidence and risk of bias using the Methodological quality and synthesis of case series and case reports. **RESULTS:** Descriptive statistics were used to report the outcome of our findings. Seven studies related to the usefulness of the external fixator during acute management of knee dislocations with vascular injuries were included. The external fixator had been used in the majority of knee dislocations with vascular lesions (72%). Timing between external fixator and vascular repair was reported on four studies (57%), two studies performed external fixation before vascular repair, and two studies performed external fixation after vascular repair. Total time of external fixator was only reported on three studies, ranging from 3 weeks to 3 months. These studies reported acute management, without referring to long-term results and without comparative groups. **CONCLUSIONS:** External fixator was used in the majority of knee dislocations with vascular injuries but the justification for its use remained unclear. Larger studies are needed to fully understand the merit of the external fixator in knee dislocations with vascular injuries. Joint protocols between vascular surgeons and trauma surgeons are necessary to agree on the aspects related to the management of knee dislocations with vascular injuries. **LEVEL OF EVIDENCE:** IV.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.067 **Quartil:** 2 **Categoria:** Orthopedics; Surgery
Posición: Orthopedics 25/82; Surgery 72/211

Savarirayan R, Tofts L, Irving M, Wilcox W, Bacino CA, Hoover-Fong J, Ullot Font R, Harmatz P, Rutsch F, Bober MB, Polgreen LE, **Ginebreda I**, Mohnike K, Charrow J, Hoernschemeyer D, Ozono K, Alanay Y, Arundel P, Kagami S, Yasui N, White KK, Saal HM, Leiva-Gea A, Luna-González F, Mochizuki H, Basel D, Porco DM, Jayaram K, Fisheleva E, Huntsman-Labed A, Day J.

Once-daily, subcutaneous vosoritide therapy in children with achondroplasia: a randomised, double-blind, phase 3, placebo-controlled, multicentre trial.

Lancet. 2020 Sep 5;396(10252):684-692. doi: 10.1016/S0140-6736(20)31541-5.

Erratum in
Lancet. 2020 Oct 10;396(10257):1070.

BACKGROUND: There are no effective therapies for achondroplasia. An open-label study suggested that vosoritide administration might increase growth velocity in children with achondroplasia. This phase 3 trial was designed to further assess these preliminary findings. **METHODS:** This randomised, double-blind, phase 3, placebo-controlled, multicentre trial compared once-daily subcutaneous administration of vosoritide with placebo in children with achondroplasia. The trial was done in hospitals at 24 sites in seven countries (Australia, Germany, Japan, Spain, Turkey, the USA, and the UK). Eligible patients had a clinical diagnosis of achondroplasia, were ambulatory, had participated for 6 months in a baseline growth study and were aged 5 to less than 18 years at enrolment. Randomisation was done by means of a voice or web-response system, stratified according to sex and Tanner stage. Participants, investigators, and trial sponsor were masked to group assignment. Participants received either vosoritide 15·0 μg/kg or placebo, as allocated, for the duration of the 52-week treatment period administered by daily subcutaneous injections in their homes by trained caregivers. The primary endpoint was change from baseline in mean annualised growth velocity at 52 weeks in treated patients as compared with controls. All randomly assigned patients were included in the efficacy analyses (n=121). All patients who received one dose of vosoritide or placebo (n=121) were included in the safety analyses. The trial is complete and is registered, with EudraCT, number, 2015-003836-11. **FINDINGS:** All participants were recruited from Dec 12, 2016, to Nov 7, 2018, with 60 assigned to receive vosoritide and 61 to receive placebo. Of 124 patients screened for eligibility, 121 patients were randomly assigned, and 119 patients completed the 52-week trial. The adjusted mean difference in annualised growth velocity between patients in the vosoritide group and placebo group was 1·57 cm/year in favour of vosoritide (95% CI [1·22-1·93]; two-sided p<0·0001). A total of 119 patients had at least one adverse event; vosoritide group, 59 (98%), and placebo group, 60 (98%). None of the serious adverse events were considered to be treatment related and no deaths occurred. **INTERPRETATION:** Vosoritide is an effective treatment to increase growth in children with achondroplasia. It is not known whether final adult height will be increased, or what the harms of long-term therapy might be.
FUNDING: BioMarin Pharmaceutical.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 79.323 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 2/167

Serrancoli G, Bogatikov P, Palacios GT,Torner J, **Monllau, JC** , **Perelli, S.**
An Open-Source Android Application to Measure Anterior-Posterior Knee Translation
Appl Sci. 2020; 10(17): 5896. doi: 10.3390/app10175896.

Featured Application The presented application can measure the anterior-posterior knee instability during laxity assessment. There are widely used standard clinical tests to estimate the instability of an anterior cruciate ligament (ACL) deficient knee by assessing the translation of the tibia with respect to the femur. However, the assessment of those tests could be quite subjective. The goal of this study is to present a universally affordable open-source Android application that is easy and quick. Moreover, it provides the possibility for a quantitative and objective analysis of that instability. The anterior-posterior knee translation of seven subjects was assessed using the open-source Android application developed. A single Android smartphone and the placement of three green skin adhesives are all that is required to use it. The application was developed using the image-processing features of the open-source OpenCV Library. An open-source Android application was developed to measure anterior-posterior (AP) translation in ACL-deficient subjects. The application identified differences in the AP translation between the ipsilateral and the contralateral legs of seven ACL-deficient subjects during Lachman and Pivot-Shift tests. Three out of seven subjects were under anesthesia. Those three were also the ones with significant differences. The application detected differences in the AP translation between the ipsilateral and

contralateral legs of subjects with ACL deficiency. The use of the application represents an easy, low-cost, reliable and quick way to assess knee instability quantitatively.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.679 **Quartil:** 2
Categoria: Chemistry, Multidisciplinary; Engineering, Muldidisciplinary; Materials Science, Multidisciplinary; Physics, Applied
Posición: Chemistry, Multidisciplinary 101/178 (Q3); Engineering, Muldidisciplinary 38/90; Materials Science, Multidisciplinary 201/334 (Q3); Physics, Applied 73/160

Soldado F F, Domenech-Fernandez P, **Barrera-Ochoa S**, Bergua-Domingo JM, Diaz-Gallardo P, Hodgson F, Knorr J.
Transverse Anterior Approach to the Elbow for Pediatric Displaced Lateral Humeral Condyle Fractures.
Arch Bone Jt Surg. 2020 Mar;8(2):142-146. doi: 10.22038/abjs.2019.30756.1797.

BACKGROUND: The anterior approach to the elbow for pediatric lateral condyle fractures (LCF) would provide a better visualization of the articular fracture resulting in better functional results, less complications and a more cosmetically-appealing scar than usually seen with the lateral approach. **METHODS:** Retrospective study of children undergoing an open reduction and internal fixation of a displaced LCF via an anterior approach with a transverse incision. Bilateral elbow range of motion (ROM), upper limb alignment and complications were registered. A 4-point ordinal Likert-type scale was employed for parents to rate their level of satisfaction with the cosmetic appearance of the scar. **RESULTS:** Eighteen children of mean age 76 months (range 27 to 101 months) were included. Fractures were classified as Jackob's Type II in 14 cases and Milch's type II in all cases. Mean follow-up was 12 (range 4 to19) months.Successful condral fracture visualization and reduction was achieved in every case. No intra-operative or post-operative complications occurred. In all cases bone union was obtained 4 to 5 weeks after surgery and at final follow-up, active elbow ROM of at least 90%, was obtained. All parents claimed to be "very satisfied" with their child's scar. A lateral spur was identified in 66.7% o patients. **CONCLUSION:** The anterior approach to the elbow was both a feasible and safe allowing full anatomical cartilage reduction. Complications after this technique might decrease compared to the lateral approach but need future comparative studies. The rate of lateral spur did not decreased. Cosmetic scar results seem to be a clear advantage of this approach compared to the classical lateral approach.

Indexado en: PubMed

Soldado F, De la Red-Gallego MA, **Barrera-Ochoa S**.
Dynamic transfer with the flexor digitorum superficialis for chronic boutonnière deformity reconstruction: a report of two cases.
J Hand Surg Eur Vol. 2020 May;45(4):415-417. doi: 10.1177/1753193419899042. Epub 2020 Jan 19.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.772 **Quartil:** 2 **Categoria:** Orthopedics; Surgery
Posición: Orthopedics 36/82; Surgery 93/211

Soldado F, **Barrera-Ochoa S**, Bergua-Domingo JM, Domenech P, Corona PS, Knorr J.
Bone nonunion management in children with a vascularized tibial periosteal graft.
Microsurgery. 2020 Oct;40(7):760-765. doi: 10.1002/micr.30655. Epub 2020 Sep 19.

BACKGROUND: Vascularized periosteal graft have demonstrated a tremendous bone healing capacity in children. The objective is to report outcomes on the use of vascularized tibial periosteal graft (VTPG) during bone reconstruction in a series of children with complex bone healing problems. **PATIENTS AND METHODS:**

Cases were collected retrospectively since May 2013 to May 2019, excluding cases of congenital pseudarthrosis of the tibia. Mean age at surgery was 12.8 (range 11-18) years. Indications included treatment of recalcitrant bone nonunion and the prevention of bone allograft-host junction nonunion in seven and three patients, respectively. The periosteal flap, based on the anterior tibial vessels, was harvested as a free flap in six instances and as a pedicled flap in four. **RESULTS:** Mean follow-up was 25.2 months (range 8-36). The flap showed a 13.6 cm (range 9-16) and mean width 3.4 cm (range 2.7-3.9). Early bone union was achieved, initially through periosteal callus, followed by cortical union at mean times of 2 and 4 months, respectively, in nine cases. The flap was not successful in a patient with severe comorbidities. No donor site complications were registered. **CONCLUSIONS:** VTPG was fast and high effective for the treatment complex bone nonunion or the prevention of allograft nonunion in children.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.425 **Quartil:** 3 **Categoria:** Surgery **Posición:** 106/211

Soldado F, Di-Felice-Ardente P, **Barrera-Ochoa S**, Diaz-Gallardo P, Bergua-Domingo JM, Knörr J.
Passive range of glenohumeral motion in children with a Sprengel's deformity.
JSES Int. 2020 Jun 1;4(3):495-498. doi: 10.1016/j.jseint.2020.04.018. eCollection 2020 Sep.

BACKGROUND: In Sprengel's deformity, loss of shoulder motion has been attributed exclusively to scapulothoracic stiffness. The purposes of this study were to evaluate passive glenohumeral (GH) joint motion in these children.**METHODS:** A prospective evaluation of 23 children was performed. Obtained data were demographics, Cavendish grade, bilateral active global shoulder elevation, and multidirectional passive GH range of motion, including: (a) GH internal rotation in abduction and GH cross-body adduction to assess for posterior GH contracture; (b) spinohumeral abduction angle (SHABD) to assess for inferior GH contracture; (c) spinohumeral adduction angle to assess for superior GH contracture; and (d) passive external rotation in shoulder adduction and abduction to assess for anterior GH contracture. Paired t tests and both Pearson's and Spearman's correlation analyses were performed. **RESULTS:** The mean patient age was 8.1 years (range, 1.4-16.7 years), with 13.4% of deformities Cavendish grade 1, 52.2% grade 2, 13.4% grade 3, and 21.7% grade 4. The involved shoulder showed a statistically significant decrease in mean active global shoulder elevation (117.4° vs. 176.1°), SHABD (14.6° vs. 41.5°), cross-body adduction (43° vs. 71.3°), and internal rotation in abduction (17.8° vs. 49.4°), all at $P < .001$. Strong inverse correlations were noted between Cavendish grade and both global shoulder elevation (r, -0.784) and SHABD (r, -0.669). Cavendish grade IV patients showed a mean decrease of 45° (range, 40°-60°) of SHABD. **CONCLUSION:** Shoulder elevation is also impaired by GH joint contractures.

Indexado en: PubMed

Torres-Claramunt R, Sánchez-Soler JF, Hinarejos P, Sala-Pujals A, Leal-Blanquet J, **Monllau JC**.
Proximal Tibiofibular Dislocation in a Closing-Wedge High Tibial Osteotomy Causes Lateral Radiological Gapping of the Knee: A Prospective Randomized Study.
J Clin Med. 2020 May 27;9(6):1622. doi: 10.3390/jcm9061622.

BACKGROUND: To determine whether a proximal tibiofibular joint dislocation (TFJD) increases lateral compartment gapping more than a fibular head osteotomy (FHO) during a closing-wedge high tibial osteotomy (CWHTO). The second objective was to determine whether lateral compartment gapping affects clinical outcomes. **METHODS:** A prospective randomized clinical study was carried out that included 18 patients in Group 1 (FHO) and 18 in Group 2 (TFJD). Varus-stress radiographs of all the patients with both knees at full

extension and at 30 ° of flexion were studied pre-operatively and 12 months post-operatively. Lateral compartment gapping was measured in millimeters. The Knee Society Score (KSS) was used to assess clinical stability. **RESULTS:** The difference between the pre- and post-operative measurements relative to gapping in the lateral knee compartment at 0 ° of knee flexion was 1.3 mm (SD 1.8) in Group 1 and 4.5 mm (SD 2.4) in Group 2 (p = 0.006). At 30 ° of knee flexion, this difference was 1.9 mm (SD 1.2) in Group 1 and 5.2 mm (SD 3.1) in Group 2 (p = 0.01). No differences were observed in the pre- and post-operative period relative to gapping in healthy knees. Pre-operatively, both groups presented similar KSS knee values: Group 1 with 54.7 (SD 11.7), Group 2 with 54.8 (SD 11.1) (n.s.). Post-operatively, these values were also similar: Group 1 with 93.2 (SD 7.4), Group 2 with 93.5 (SD 5.5) (n.s.). **CONCLUSIONS:** In patients who have undergone a CWHTO, TFJ dislocation increases knee lateral compartment gapping when compared to an FHO at 0 ° and 30 ° of knee flexion. However, this fact seems to have no repercussion on the functional status of the knees as measured with the KSS at the one-year follow-up.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.242 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 39/167

INSTITUTO ONCOLÓGICO DR. ROSELL – DEXEUS

Nº Articulos indexados: 25 **Factor de Impacto total:** 339.450 **Factor impacto medio x artículo:** 13.578

Aguado C, **Giménez-Capitán A**, **Román R**, **Rodríguez S**, **Jordana-Ariza N**, **Aguilar A**, Cabrera-Gálvez C, Rivas-Corredor C, Lianes P, **Viteri S**, Moya I, **Molina-Vila MA**.
RNA-Based Multiplexing Assay for Routine Testing of Fusion and Splicing Variants in Cytological Samples of NSCLC Patients.
Diagnostics (Basel). 2020 Dec 23;11(1):15. doi: 10.3390/diagnostics11010015.

The detection of ALK receptor tyrosine kinase (ALK), ROS proto-oncogen1, receptor tyrosine kinase (ROS1), ret proto-oncogen (RET), and MET proto-oncogen exon 14 skipping (METΔex14) allows for the selection of specific kinase inhibitor treatment in patients with non-small cell lung cancer (NSCLC). Multiplex technologies are recommended in this setting. We used nCounter, a multiplexed technology based on RNA hybridization, to detect ALK, ROS1, RET, and METΔex14 in RNA purified from cytological specimens (n = 16) and biopsies (n = 132). Twelve of the 16 cytological samples (75.0%) were evaluable by nCounter compared to 120 out of 132 (90.9%) biopsies. The geometrical mean (geomean) of the housekeeping genes of the nCounter panel, but not the total amount of RNA purified, was significantly higher in biopsies vs. cytological samples. Among cytological samples, we detected ALK (n = 3), METΔex14 (n = 1) and very high MET expression (n = 1) positive cases. The patient with METΔex14 had a partial response to tepotinib, one of the patients with ALK fusions was treated with crizotinib with a complete response. Cell blocks and cytological extensions can be successfully used for the detection of fusions and splicing variants using RNA-based methods such as nCounter.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.706 **Quartil:** 2 **Categoria:** Medicine, General & Internal **Posición:** 45/167

Aguado C, Teixido C, Román R, Reyes R, Giménez-Capitán A, Marin E, **Cabrera C**, Viñolas N, Castillo S, Muñoz S, Arcocha A, López-Vilaró L, Sullivan I, **Aldeguer E**, **Rodríguez S**, Moya I, **Viteri S**, Cardona AF, Palmero R, Sainz C, Mesa-Guzmán M, Lozano MD, **Aguilar-Hernández A**, **Martínez-Bueno A**, **González-Cao M**, Gonzalvo E, Leenders WPJ, **Rosell R**, Montuenga LM, Prat A, **Molina-Vila MA**, Reguart N.
Multiplex RNA-based detection of clinically relevant MET alterations in advanced non-small cell lung cancer.
Mol Oncol. 2021 Feb;15(2):350-363. doi: 10.1002/1878-0261.12861. Epub 2020 Dec 7.

MET inhibitors have shown activity in non-small-cell lung cancer patients (NSCLC) with MET amplification and exon 14 skipping (METΔex14). However, patient stratification is imperfect, and thus, response rates have varied widely. Here, we studied MET alterations in 474 advanced NSCLC patients by nCounter, an RNA-based technique, together with next-generation sequencing (NGS), fluorescence in situ hybridization (FISH), immunohistochemistry (IHC), and reverse transcriptase polymerase chain reaction (RT-PCR), exploring correlation with clinical benefit. Of the 474 samples analyzed, 422 (89%) yielded valid results by nCounter, which identified 13 patients (3%) with METΔex14 and 15 patients (3.5%) with very-high MET mRNA expression. These two subgroups were mutually exclusive, displayed distinct phenotypes and did not generally coexist with other drivers. For METΔex14, 3/8 (37.5%) samples positive by nCounter tested negative by NGS. Regarding patients with very-high MET mRNA, 92% had MET amplification by FISH and/or NGS. However, FISH failed to identify three patients (30%) with very-high MET RNA expression, among which one received MET tyrosine kinase inhibitor treatment deriving clinical benefit. Our results indicate that quantitative mRNA-based techniques can improve the selection of patients for MET-targeted therapies.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.603 **Quartil:** 1 **Categoria:** Oncology **Posición:** 52/242

Attili I, Bonanno L, **Karachaliou N**, **Bracht JWP**, **Berenguer J**, **Codony-Servat C**, **Codony-Servat J**, **Aldeguer E**, **Gimenez-Capitan A**, Dal Maso A, Fassan M, Chaib I, **Molina-Vila MA**, Passaro A, de Marinis F, Pasello G, Guarneri V, Conte PF, **Rosell R**.
SRC and PIM1 as potential co-targets to overcome resistance in MET deregulated non-small cell lung cancer.
Transl Lung Cancer Res. 2020 Oct;9(5):1810-1821. doi: 10.21037/tlcr-20-681.

BACKGROUND: The role of MET alterations in non-small cell lung cancer (NSCLC) is increasing and several targeted agents are under evaluation. MET exon 14 skipping mutations and MET amplifications are associated with potential sensitivity to MET inhibition, though resistance mechanisms are emerging. In MET addicted cells, MET inhibition leads to activation of proviral integration site for Moloney murine leukemia virus-1 (PIM1). PIM1 and proto-oncogene tyrosine-protein kinase Src (SRC) can regulate the expression of receptor tyrosine kinases (RTKs), potentially inducing resistance to MET inhibition through cross-activation. **METHODS:** We evaluated the activity of class I-II MET inhibitors, the SRC inhibitor dasatinib, and pan-PIM inhibitors in four MET addicted cell lines. We assessed the effect of the dual MET/PIM and MET/SRC inhibition on cell viability and at the protein level. We evaluated RNA expression profiles of the cell lines. Advanced NSCLCs were also screened for MET alterations. **RESULTS:** All cell lines were sensitive to class I-II MET inhibitors. All cell lines were resistant to single PIM and SRC inhibition. Dual MET/PIM inhibition was synergistic or additive in MET amplified cell lines and dual MET/SRC inhibition was highly synergistic in all MET addicted cell lines. The addition of an SRC inhibitor partially prevents the RTKs cross-activation. MET alterations were found in 9 out of 97 evaluable samples (9.3%); median overall survival in MET altered patients was 5 months (95% CI, 3 m-NA). **CONCLUSIONS:** We identified a potential role of PIM inhibition in MET amplified tumors and of SRC inhibition in MET addicted tumors. Potential applications of this new treatment strategy warrant further evaluation.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.498 **Quartil:** 1 **Categoria:** Oncology; Respiratory System
Posición: Oncology 55/242; Respiratory System 11/64

Brahmer JR, Johnson ML, Cobo M, **Viteri S**, Sarto JC, Sukari A, Awad MM, Salgia R, Papadimitrakopoulou VA, Rajan A, Bandyopadhyay N, Allred AJ, Wade M, Mason GE, Zudaire E, Knoblauch RE, Stone N, Lorenzi MV, Hassan R.
JNJ-64041757 (JNJ-757), a Live, Attenuated, Double-Deleted Listeria monocytogenes-Based Immunotherapy in Patients With NSCLC: Results From Two Phase 1 Studies.
JTO Clin Res Rep. 2020 Oct 5;2(2):100103. doi: 10.1016/j.jtocrr.2020.100103. eCollection 2021 Feb.

INTRODUCTION: JNJ-64041757 (JNJ-757) is a live, attenuated, double-deleted Listeria monocytogenes-based immunotherapy expressing human mesothelin. JNJ-757 was evaluated in patients with advanced NSCLC as monotherapy (phase 1) and in combination with nivolumab (phase 1b/2). **METHODS:** Patients with stage IIIB/IV NSCLC who had received previous therapy were treated with JNJ-757 (1 × 108 or 1 × 109 colony-forming units [CFUs]) alone (NCT02592967) or JNJ-757 (1 × 109 CFU) plus intravenous nivolumab 240 mg (NCT03371381). Study objectives included the assessment of immunogenicity, safety, and efficacy. **RESULTS:** In the monotherapy study, 18 patients (median age 63.5 y; women 61%) were treated with JNJ-757 (1 × 108 or 1 × 109 CFU) with a median duration of 1.4 months (range: 0-29). The most common adverse events (AEs) were pyrexia (72%) and chills (61%), which were usually mild and resolved within 48 hours. Peripheral proinflammatory cytokines and lymphocyte activation were induced posttreatment with transient mesothelin-specific T-cell responses in 10 of 13 biomarker-evaluable patients. With monotherapy, four of 18 response-evaluable patients had stable disease

of 16 or more weeks, including one patient with a reduction in target lesions. In the combination study, 12 patients were enrolled (median age 63.5 y; women 33%). The most common AEs with combination therapy were pyrexia (67%) and chills (58%); six patients had grade 3 AEs or greater, including two cases of treatment-related fatal pneumonitis. The best overall response for the combination was stable disease in four of nine response-evaluable patients. **CONCLUSIONS:** As monotherapy, JNJ-757 was immunogenic and tolerable, with mild infusion-related fever and chills. The limited efficacy of JNJ-757, alone or with nivolumab, did not warrant further investigation of the combination.

Indexado en: PubMed

van Brummelen EMJ, Levchenko E, Dómine M, Fennell DA, Kindler HL, **Viteri S**, Gadgeel S, López PG, Kostorov V, Morgensztern D, Orlov S, Zauderer MG, Vansteenkiste JF, Baker-Neblett K, Vasquez J, Wang X, Bellovin DI, Schellens JHM, Yan L, Mitrica I, DeYoung MP, Trigo J.
A phase Ib study of GSK3052230, an FGF ligand trap in combination with pemetrexed and cisplatin in patients with malignant pleural mesothelioma.
Invest New Drugs. 2020 Apr;38(2):457-467. doi: 10.1007/s10637-019-00783-7. Epub 2019 May 7.

Background Fibroblast growth factors (FGFs) have a fundamental role in cancer. Sequestering FGFs with GSK3052230 (FP-1039) blocks their ability to activate FGFRs while avoiding toxicities associated with small molecule inhibitors of FGFR, including hyperphosphatemia and retinal, nail, and skin toxicities. Methods A multicenter, open-label, phase Ib study evaluated weekly GSK3052230 added to pemetrexed/cisplatin in patients with treatment-naive, unresectable malignant pleural mesothelioma. Doses were escalated according to a 3 + 3 design, followed by cohort expansion at the maximum tolerated dose (MTD). Endpoints included safety, overall response rate, progression-free survival, and pharmacokinetics. Results 36 patients were dosed at 10, 15, and 20 mg/kg doses of GSK3052230. Three dose-limiting toxicities were observed at 20 mg/kg and one at 15 mg/kg. The MTD was defined as 15 mg/kg and used for cohort expansion. The most common treatment-related adverse events (AEs) were nausea (56%), decreased appetite (36%), infusion reactions (36%), decreased neutrophil counts (36%), and fatigue (33%). The confirmed ORR was 39% (95% CI: 23.1-56.5) (14/36 PRs) and 47% had stable disease (17/36), giving a disease control rate of 86%. At 15 mg/kg GSK3052230 (n = 25), the ORR was 44% (95% CI: 24.4-65.1), and the median PFS was 7.4 months (95% CI: 6.7-13.4). Four patients had disease control for over 1 year, and three were still ongoing. Conclusion At 15 mg/kg weekly, GSK3052230 was well tolerated in combination with pemetrexed/cisplatin and durable responses were observed. Importantly, AEs associated with small molecule inhibitors of FGFR were not observed, as predicted by the unique mechanism of action of this drug.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.850 **Quartil:** 2 **Categoria:** Oncology; Pharmacology & Pharmacy
Posición: Oncology 138/242; Pharmacology & Pharmacy 118/276 (Q2)

Cardona AF, Arrieta O, Ruiz-Patiño A, Sotelo C, Zamudio-Molano N, Zatarain-Barrón ZL, Ricaurte L, Raez L, Álvarez MPP, Barrón F, Rojas L, Rolfo C, Karachaliou N, **Molina-Vila MA**, **Rosell R**.
Precision medicine and its implementation in patients with NTRK fusion genes: perspective from developing countries.
Ther Adv Respir Dis. 2020 Jan-Dec;14:1753466620938553. doi: 10.1177/1753466620938553.

Precision oncology is the field that places emphasis on the diagnosis and treatment of tumors that harbor specific genomic alterations susceptible to inhibition or modulation. Although most alterations are only present in a minority of patients, a substantial effect on survival can be observed in this subgroup. Mass genome

sequencing has led to the identification of a specific driver in the translocations of the tropomyosin receptor kinase family (NTRK) in a subset of rare tumors both in children and in adults, and to the development and investigation of Larotrectinib. This medication was granted approval by the US Food and Drug Administration for NTRK-positive tumors, regardless of histology or age group, as such, larotrectinib was the first in its kind to be approved under the premise that molecular pattern is more important than histology in terms of therapeutic approach. It yielded significant results in disease control with good tolerability across a wide range of diseases including rare pediatric tumors, salivary gland tumors, gliomas, soft-tissue sarcomas, and thyroid carcinomas. In addition, and by taking different approaches in clinical trial design and conducting allocation based on biomarkers, the effects of target therapies can be isolated and quantified. Moreover, and considering developing nations and resource-limited settings, precision oncology could offer a tool to reduce cancer-related disability and hospital costs. In addition, developing nations also present patients with rare tumors that lack a chance of treatment, outside of clinical trials. This, in turn, offers the possibility for international collaboration, and contributes to employment, education, and health service provisions. The reviews of this paper are available via the supplemental material section.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.031 **Quartil:** 2 **Categoria:** Respiratory System **Posición:** 22/64

Gálvez C, Urrea V, Dalmau J, Jimenez M, Clotet B, Monceaux V, Huot N, Leal L, González-Soler V, **González-Cao M**, Müller-Trutwin M, Sáez-Cirión A, García F, Blanco J, Martinez-Picado J, Salgado M.
Extremely low viral reservoir in treated chronically HIV-1-infected individuals.
EBioMedicine. 2020 Jul;57:102830. doi: 10.1016/j.ebiom.2020.102830. Epub 2020 Jun 21.

Comment in
EBioMedicine. 2020 Aug;58:102889.

BACKGROUND: Small viral reservoirs are found predominantly in HIV-1 controllers and individuals treated during acute/early HIV-1 infection. However, other HIV+ individuals could naturally also harbour low viral reservoirs. **METHODS:** We screened 451 HIV-1-infected treated-individuals with suppressed plasma viremia for at least 3 years and stored cryopreserved peripheral blood mononuclear cells (PBMCs). Total HIV-DNA was analysed in PBMCs with ddPCR. Individuals with <50 HIV-DNA copies/106 PBMCs constitute the 'Low Viral Reservoir Treated' cohort (LoViReT). Longitudinal samples were obtained from 12 chronically treated LoViReT and compared to 13 controls (>50 HIV-DNA copies/106 PBMCs) to analyse total HIV-DNA, T-cell and NK-cell populations, HIV-1 specific antibodies, and plasma inflammation markers. **FINDINGS:** We found that 9.3% of the individuals screened had <50 HIV-DNA copies/106 PBMCs. At least 66% initiated cART during the chronic phase of HIV-1 infection (cp-LoViReT). Cp-LoViReT harboured lower levels of HIV-DNA before cART and after treatment introduction the decays were greater compared to controls. They displayed a marked decline in quantity and avidity in HIV-specific antibodies after initiation of cART. Cp-LoViReT had fewer CD8+ TTM and TEMRA in the absence of cART, and higher CD8+ TN after 18 months on therapy. **INTERPRETATION:** Treated chronically HIV-1-infected LoViReT represent a new phenotype of individuals characterized by an intrinsically reduced viral reservoir, less impaired CD8+ T-cell compartment before cART, and low circulating HIV-1 antigens despite being treated in the chronic phase of infection. The identification of this unique group of individuals is of great interest for the design of future eradication studies. **FUNDING:** MSD Spain.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 8.143 **Quartil:** 1 **Categoria:** Medicine, Research & Experimental **Posición:** 17/140

Garcia-Campelo R, Arrieta O, Massuti B, Rodriguez-Abreu D, Granados ALO, Majem M, Vicente D, Lianes P, Bosch-Barrera J, Insa A, Dómine M, Reguart N, Guirado M, Sala MÁ, Vázquez-Estevez S, Caro RB, Drozdowskyj A, Verdú A, Karachaliou N, **Molina-Vila MA**, **Rosell R**; Spanish Lung Cancer Group (SLCG).
Combination of gefitinib and olaparib versus gefitinib alone in EGFR mutant non-small-cell lung cancer (NSCLC): A multicenter, randomized phase II study (GOAL).
Lung Cancer. 2020 Dec;150:62-69. doi: 10.1016/j.lungcan.2020.09.018. Epub 2020 Oct 3.

OBJECTIVES: Progression-free survival (PFS) and response rate to epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) varies in patients with non-small-cell lung cancer (NSCLC) driven byEGFR mutations, suggesting that other genetic alterations may influence oncogene addiction. Low BRCA1 mRNA levels correlate with longer PFS in erlotinib-treated EGFR-mutant NSCLC patients. Since the poly (ADP-ribose) polymerase (PARP) inhibitor, olaparib, may attenuate and/or prevent BRCA1 expression, the addition of olaparib to gefitinib could improve outcome in EGFR-mutant advanced NSCLC. **MATERIALS AND METHODS:** GOAL was a multicenter, randomized phase IB/II study performed in two countries, Spain and Mexico. Eligible patients were 18 years or older, treatment-naïve, pathologically confirmed stage IV NSCLC, with centrally confirmed EGFR mutations and measurable disease. Patients were randomly allocated (1:1) to receive gefitinib 250 mg daily or gefitinib 250 mg daily plus olaparib 200 mg three times daily in 28-day cycles. The primary endpoint was PFS. Secondary endpoints included overall survival (OS), response rate, safety and tolerability. **RESULTS:** Between September 2013, and July 2016, 182 patients underwent randomization, 91 received gefitinib and 91 received gefitinib plus olaparib. There were no differences in gender, age, smoking status, performance status, presence of bone and brain metastases or type ofEGFR mutation. Median PFS was 10.9 months (95 % CI 9.3-13.3) in the gefitinib arm and 12.8 months (95 % CI 9.1-14.7) in the gefitinib plus olaparib arm (HR 1.38, 95 % CI 1.00-1.92; p = 0.124). The most common adverse events were anemia, 78 % in gefitinib plus olaparib group, 38 % in gefitinib arm, diarrhea, 65 % and 60 %, and fatigue, 40 % and 32 %, respectively. **CONCLUSIONS:** The gefitinib plus olaparib combination did not provide significant benefit over gefitinib alone. The combination's safety profile showed an increase in hematological and gastrointestinal toxicity, compared to gefitinib alone, however, no relevant adverse events were noted.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.705 **Quartil:** 1 **Categoria:** Respiratory System; Oncology
Posición: Respiratory System 13/64; Oncology 73/242 (Q2)

Gonzalez-Cao M, Martinez-Picado J, **Rosell R**.
Safety of Anti-PD-L1 Inhibition in HIV-1-Infected Patients With Cancer-Reply.
JAMA Oncol. 2020 Nov 1;6(11):1810-1811. doi: 10.1001/jamaoncol.2020.3400.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 31.777 **Quartil:**1 **Categoria:** Oncology **Posición:** 8/242

Gonzalez-Cao M, Morán T, Dalmau J, Garcia-Corbacho J, **Bracht JWP**, Bernabe R, Juan O, de Castro J, Blanco R, **Drozdowskyj A**, Argilaguet J, Meyerhans A, Blanco J, Prado JG, Carrillo J, Clotet B, Massuti B, Provencio M, **Molina-Vila MA**, **Mayo de Las Casa C**, **Garzon M**, Cao P, Huang CY, Martinez-Picado J, **Rosell R**.
Assessment of the Feasibility and Safety of Durvalumab for Treatment of Solid Tumors in Patients With HIV-1 Infection: The Phase 2 DURVAST Study.
JAMA Oncol. 2020 Jul 1;6(7):1063-1067. doi: 10.1001/jamaoncol.2020.0465.

IMPORTANCE: Therapies targeting the programmed cell death 1 (PD-1) receptor or its ligand (PD-L1), such as the humanized monoclonal antibody durvalumab, have shown durable clinical responses in several tumor types.

However, concerns about the safety and feasibility of PD-1/PD-L1 blockade in HIV-1-infected individuals have led to the exclusion of these patients from clinical trials on cancer immunotherapies. **OBJECTIVE:** To evaluate the feasibility and safety of durvalumab treatment in patients with advanced cancer and virologically controlled HIV-1 infection. **DESIGN, SETTING, AND PARTICIPANTS:** The DURVAST study was a nonrandomized, open-label, phase 2 clinical trial in patients with any solid tumor type in which anti-PD-1 or anti-PD-L1 antibodies have approved indications or for which there are data of antitumoral activity with no other available curative therapy. All patients had basal undetectable plasma viremia while undergoing combination antiretroviral therapy. **INTERVENTIONS:** Treatment consisted of intravenous infusion of durvalumab (1500 mg every 4 weeks) until disease progression or unacceptable toxic effects. **MAIN OUTCOMES AND MEASURES:** Adverse events were graded with the use of the National Cancer Institute Common Terminology Criteria for Adverse Events, version 4.03. Tumor response was evaluated using the Response Evaluation Criteria in Solid Tumors version 1.1. **RESULTS:** A total of 20 HIV-1-infected patients with advanced cancer were enrolled; 16 (80%) were male, the median (range) age was 54 (30-73) years, and 12 (60%) had progressed with previous cancer treatment lines. A median (range) of 4 (1-16) cycles of durvalumab were administered. Drug-related adverse events were observed in 50% of patients, and all were grade 1 and 2 (mainly diarrhea, asthenia, and arthromyalgia). Four of 16 response-evaluable patients (25%) had a partial response. Five patients (31%) had stable disease, including 4 with durable stable disease (disease control rate of 50%). CD4+ and CD8+ T-cell counts and plasma HIV-1 viremia remained stable throughout the study. **CONCLUSIONS AND RELEVANCE:** Durvalumab treatment was feasible and safe in HIV-1-infected patients with cancer receiving combination antiretroviral therapy. HIV-1-infected patients on suppressive antiretroviral therapy with advanced cancer should have access to cancer immunotherapy treatments. **TRIAL REGISTRATION:** ClinicalTrials.gov Identifier: NCT03094286.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 31.777 **Quartil:** 1 **Categoria:** Oncology **Posición:** 8/242

Ito M, **Codony-Servat J**, **Giménez-Capitán A**, Serra-Mitjans M, Pérez-Ochoa F, Llige D, Chaib I, Rami-Porta R, Obiols C, Call S, Iglesias M, Belda-Sanchis J, Tarroch-Sarasa X, **Karachaliou N**, **Molina-Vila MA**, Okada M, **Rosell R**.

Src-Homology 2 Domain-Containing Phosphatase 2 in Resected EGFR Mutation-Positive Lung Adenocarcinoma.

JTO Clin Res Rep. 2020 Aug 21;1(4):100084. doi: 10.1016/j.jtocrr.2020.100084. eCollection 2020 Nov.

INTRODUCTION: EGFR mutation-positive lung adenocarcinoma (LUAD) displays impaired phosphorylation of ERK and Src-homology 2 domain-containing phosphatase 2 (SHP2) in comparison with EGFR wild-type LUADs. We hypothesize that SHP2 expression could be predictive in patients positive with resected EGFR mutation versus patients with EGFR wild-type LUAD. **METHODS:** We examined resected LUAD cases from Japan and Spain. mRNA expression levels of AXL, MET, CDCP1, STAT3, YAP1, and SHP2 were analyzed by quantitative reverse transcriptase polymerase chain reaction. The activity of SHP2 inhibitors plus erlotinib were tested in EGFR-mutant cell lines and analyzed by cell viability assay, Western blot, and immunofluorescence. **RESULTS:** A total of 50 of 100 EGFR mutation-positive LUADs relapsed, among them, patients with higher SHP2 mRNA expression revealed shorter progression-free survival, in comparison with those having low SHP2 mRNA (hazard ratio: 1.83; 95% confidence interval: 1.05-3.23; p = 0.0329). However, SHP2 was not associated with prognosis in the remaining 167 patients with wild-type EGFR. In EGFR-mutant cell lines, the combination of SHP099 or RMC-4550 (SHP2 inhibitors) with erlotinib revealed synergism via abrogation of phosphorylated AKT (S473) and ERK1/2 (T202/Y204). Although erlotinib translocates phosphorylated SHP2 (Y542) into the nucleus, either RMC-4550 alone, or in combination with erlotinib, relocates SHP2 into the cytoplasm membrane, limiting AKT and ERK1/2 activation. **CONCLUSIONS:** Elevated SHP2 mRNA levels are associated with recurrence in resected EGFR mutation-positive LUADs, but not in EGFR wild-type. EGFR tyrosine kinase inhibitors can enhance SHP2 activation, hindering adjuvant therapy. SHP2 inhibitors could improve the benefit of adjuvant therapy in EGFR mutation-positive LUADs.

Indexado en: PubMed

Karachaliou N, Arrieta O, **Giménez-Capitán A**, **Aldeguer E**, Drozdowskyj A, Chaib I, Reguart N, Garcia-Campelo R, Chen JH, **Molina-Vila MA**, **Rosell R**; Spanish Lung Cancer Group (SLCG).

BRCA1 Expression and Outcome in Patients With EGFR-Mutant NSCLC Treated With Gefitinib Alone or in Combination With Olaparib.

JTO Clin Res Rep. 2020 Oct 23;2(3):100113. doi: 10.1016/j.jtocrr.2020.100113. eCollection 2021 Mar.

INTRODUCTION: DNA repair capacity, as exemplified by BRCA1 gene expression, is related with outcome to EGFR tyrosine kinase inhibitors in patients with EGFR-mutant NSCLC. Olaparib, a PARP inhibitor, reduces BRCA1 expression. Olaparib was tested in combination with gefitinib versus gefitinib single agent, as a first-line therapy for patients with EGFR-mutant NSCLC in the GOAL study (trial registration: NCT01513174). Here, we report the results of the biomarker-related prespecified secondary objectives of the GOAL study. **METHODS:** We evaluated the impact of BRCA1 mRNA expression in 91 patients with EGFR-mutant NSCLC. Of those 91 patients, 51 were randomized to treatment with gefitinib and 40 were randomized to treatment with gefitinib plus olaparib. We explored in vitro whether BRCA1 mRNA levels are related with outcome to gefitinib plus olaparib. The expression levels of 53BP1, CtIP, and AXL were also explored and correlated with the treatment outcome. **RESULTS:** Overall, as what happened in the GOAL study, no statistically significant difference was observed in median progression-free survival (PFS) between the two treatment arms, for the 91 patients of the present study ($p = 0.2419$). For patients with high BRCA1 mRNA expression (BRCA1-high group), median PFS was 12.9 months in the gefitinib plus olaparib arm, compared with 9.2 months in the gefitinib arm ($p = 0.0449$). In the gefitinib arm, median PFS was 9.1 months for the BRCA1-high group and 10.2 months for the BRCA1-low group ($p = 0.0193$). We observed a more pronounced synergism of gefitinib plus olaparib in cells with higher BRCA1 compared with those with low BRCA1 mRNA expression. **CONCLUSIONS:** High BRCA1 mRNA expression identified patients with NSCLC who benefited from gefitinib plus olaparib in the GOAL phase 2 clinical trial.

Indexado en: PubMed

Manso L, Hernando C, Galán M, Oliveira M, Cabrera MA, Bratos R, Rodríguez CA, Ruiz-Borrego M, Blanch S, Llombart-Cussac A, Delgado-Mingorance JI, Álvarez-Busto I, Gallegos I, González-Cortijo L, Morales S, Aguirre E, Hernando BA, Ballesteros A, Alés-Martínez JE, Reboredo C, Oltra A, **González-Cao M**, Santisteban M, Malón D, Echeverría I, García-Garre E, Vega E, Servitja S, Andrés R, Robles CE, López R, Galve E, Echarri MJ, Legeren M, Moreno F.

Palbociclib combined with endocrine therapy in heavily pretreated HR(+)/HER2(-) advanced breast cancer patients: Results from the compassionate use program in Spain (PALBOCOMP).

Breast. 2020 Dec;54:286-292. doi: 10.1016/j.breast.2020.11.005. Epub 2020 Nov 13.

BACKGROUND: This study evaluated efficacy and safety of palbociclib, a CDK4/6 inhibitor, in heavily-pretreated hormone receptor-positive and human epidermal growth factor receptor 2-negative (HR+/HER2-) metastatic breast cancer (mBC) patients during the compassionate use program in Spain from February 2015 to November 2017. **PATIENTS AND METHODS:** Patient data were collected retrospectively from 35 hospitals in Spain. Patients with HR+/HER2- mBC who had progressed on ≥4 treatments for advanced disease were eligible. **RESULTS:** A total of 219 patients received palbociclib in combination with aromatase inhibitors (110; 50.2%), fulvestrant (87; 39.7%), tamoxifen (8; 3.6%) or as single agent (10; 4.6%). Mean age of the patients was 58 years; 31 patients (16.1%) were premenopausal and 162 (83.9%) were postmenopausal at the beginning of treatment with palbociclib. Patients had received a median of 3 previous lines of endocrine therapy (ET) for advanced disease.

Real-world tumor response (rwTR) and clinical benefit rate were 5.9% (n = 13) and 46.2% (n = 101), respectively. The median real world progression-free survival (rwPFS) was 6.0 months (95% CI 5.7-7.0) and the median overall survival was 19.0 months (95% CI 16.4-21.7). Subgroup analysis revealed a significant difference in median rwPFS in patients treated with palbociclib plus fulvestrant depending on the duration of prior treatment with fulvestrant monotherapy (>6 versus ≤6 months; HR 1.93, 95% CI 1.37-2.73, p < 0.001). The most frequently reported toxicities were neutropenia, asthenia, thrombopenia and anemia. **CONCLUSIONS:** Palbociclib can be an effective and safe treatment option in patients with heavily pretreated endocrine-sensitive mBC, especially in those with longer PFS to previous ET.

Indexado en: PubMed

Marin E, Teixido C, Carmona-Rocha E, Reyes R, Arcocha A, Viñolas N, Rodríguez-Mues M, Cabrera C, Sánchez M, Vollmer I, Castillo S, Muñoz S, Sullivan IG, Rodriguez A, Garcia M, Alos S, Jares P, Martinez A, Prat A, **Molina-Vila MÁ**, Reguart N.

Usefulness of Two Independent DNA and RNA Tissue-Based Multiplex Assays for the Routine Care of Advanced NSCLC Patients.

Cancers (Basel). 2020 Apr 30;12(5):1124. doi: 10.3390/cancers12051124.

Personalized medicine is nowadays a paradigm in lung cancer management, offering important benefits to patients. This study aimed to test the feasibility and utility of embedding two multiplexed genomic platforms as the routine workup of advanced non-squamous non-small cell lung cancer (NSCLC) patients. Two parallel multiplexed approaches were performed based on DNA sequencing and direct digital detection of RNA with nCounter® technology to evaluate gene mutations and fusions. The results were used to guide genotype-directed therapies and patient outcomes were collected. A total of 224 advanced non-squamous NSCLC patients were prospectively included in the study. Overall, 85% of samples were successfully characterized at DNA and RNA levels and oncogenic drivers were found in 68% of patients, with KRAS, EGFR, METΔex14, BRAF, and ALK being the most frequent (31%, 19%, 5%, 4%, and 4%, respectively). Among all patients with complete genotyping results and follow-up data (n = 156), the median overall survival (OS) was 1.90 years (confidence interval (CI) 95% 1.69-2.10) for individuals harbouring an actionable driver treated with a matched therapy, compared with 0.59 years (CI 95% 0.39-0.79) in those not eligible for any targeted therapy and 0.61 years (CI 95% 0.12-1.10) in patients with no drivers identified (p < 0.001). Integrating DNA and RNA multiplexing technologies into the routine molecular testing of advanced NSCLC patients is feasible and useful and highlights the necessity of widespread integrating comprehensive molecular diagnosis into lung cancer care.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.639 **Quartil:** 1 **Categoria:** Oncology **Posición:** 51/242

Mayo-de-Las-Casas C, Velasco A, Sanchez D, **Martínez-Bueno A**, **Garzón-Ibáñez M**, Gatius S, Ruiz-Miró M, Gonzalez-Tallada X, Llordella I, Tresserra F, **Rodríguez S**, **Aldeguer E**, Roman-Canal B, **Bertran-Alamillo J**, **García-Peláez B**, **Rosell R**, **Molina-Vila MA**, Matias-Guiu X.

Detection of somatic mutations in peritoneal lavages and plasma of endometrial cancer patients: A proof-of-concept study.

Int J Cancer. 2020 Jul 1;147(1):277-284. doi: 10.1002/ijc.32872. Epub 2020 Feb 17.

Endometrial cancer (EC) is the most common gynecologic malignancy in developed countries. Although most patients are diagnosed at early stages, 15-20% will relapse despite local treatment. Presently, there are no reliable markers to identify patients with worse outcomes who may benefit from adjuvant treatments, such as chemotherapy, and liquid biopsies may be of use in this setting. Peritoneal lavages are systematically performed

during endometrial surgery but little data are available about their potential as liquid biopsies. We analyzed KRAS and PIK3CA mutations in paired surgical biopsies, blood and cytology-negative peritoneal lavages in a cohort of 50 EC patients. Surgical biopsies were submitted to next-generation sequencing (NGS) while circulating-free DNA (cfDNA) purified from plasma and peritoneal lavages was analyzed for KRAS and PIK3CA hotspot mutations using a sensitive quantitative polymerase chain reaction (PCR) assay. NGS of biopsies revealed KRAS, PIK3CA or concomitant KRAS + PIK3CA mutations in 33/50 (66%) EC patients. Of those, 19 cases carried hotspot mutations. Quantitative PCR revealed KRAS and/or PIK3CA mutations in the lavages of 9/19 (47.4%) hotspot EC patients. In contrast, only 2/19 (10.5%) blood samples from hotspot EC patients were positive. Mutations found in cfDNA consistently matched those in paired biopsies. One of the two patients positive in plasma and lavage died in less than 6 months. In conclusion, mutational analysis in peritoneal lavages and blood from early stage EC is feasible. Further studies are warranted to determine if it might help to identify patients with worse prognosis. Human genes discussed: KRAS, KRAS proto-oncogene, GTPase; PIK3CA, phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 7.396 **Quartil:** 1 **Categoria:** Oncology **Posición:** 42/242

Molina-Vila MA, Stahel RA, Dafni U, **Jordana-Ariza N**, **Balada-Bel A**, **Garzón-Ibáñez M**, **García-Peláez B**, **Mayo-de-Las-Casas C**, Felip E, Curioni Fontecedro A, Gautschi O, Peters S, Massutí B, Palmero R, Ponce Aix S, Carcereny E, Früh M, Pless M, Popat S, Cuffe S, Bidoli P, Kammler R, Roschitzki-Voser H, Tsourti Z, Karachaliou N, **Rosell R**.
Evolution and Clinical Impact of EGFR Mutations in Circulating Free DNA in the BELIEF Trial.
J Thorac Oncol. 2020 Mar;15(3):416-425. doi: 10.1016/j.jtho.2019.11.023. Epub 2019 Dec 5.

INTRODUCTION: Longitudinal evaluation of mutations in blood samples was a prespecified secondary objective in the BELIEF trial of erlotinib and bevacizumab in advanced EGFR-positive NSCLC. Here, we report the testing results and explore the correlation of EGFR status in blood with clinical outcomes. **METHODS:** Blood samples were prospectively collected from patients at baseline, at response evaluation, and at progression and sent to a central laboratory. Circulating free DNA was purified and EGFR mutations were analyzed with a validated real-time quantitative polymerase chain reaction assay. **RESULTS:** EGFR exon 19/21 mutations were detected in 55 of 91 baseline blood samples (60.4%) and correlated with a significantly worse progression-free survival: 11.4 months (95% confidence interval [CI]: 9.0-14.8 mo) for the patients who were positive versus 22.9 months (95% CI: 9.5-33.9 mo) for those who were negative (log-rank p = 0.0020). Among the 74 samples at response, exon 19/21 mutations were detected only in three samples (4.1%). In contrast, 29 of 58 patients (50.0%) were exon 19/21 positive at progression and showed a significantly worse median overall survival of 21.7 months (95% CI: 17.0-30.9 mo) compared with 37.4 months (95% CI: 22.6-53.1 mo) for those who were negative (log-rank p = 0.011). Blood samples at the three time points were available for 48 patients. Of those, among 14 exon 19/21 EGFR-negative at presentation, 13 (93%) were persistently negative for the sensitizing mutations after progression and the p.T790M could only be detected in the blood of two patients.**CONCLUSIONS:** Longitudinal testing of EGFR mutations in blood can offer valuable clinical information. In patients of the BELIEF study, detection of EGFR mutations in circulating free DNA at presentation was associated with shorter progression-free survival, whereas positivity at progression correlated with shorter overall survival. Finally, patients negative in blood at presentation were almost invariably negative at relapse.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 15.609 **Quartil:** 1 **Categoria:** Oncology; Respiratory System
Posición: Oncology 13/242; Respiratory System 4/64

Paik PK, Felip E, Veillon R, Sakai H, Cortot AB, Garassino MC, Mazieres J, **Viteri S**, Senellart H, Van Meerbeeck J, Raskin J, Reinmuth N, Conte P, Kowalski D, Cho BC, Patel JD, Horn L, Griesinger F, Han JY, Kim YC, Chang GC, Tsai CL, Yang JC, Chen YM, Smit EF, van der Wekken AJ, Kato T, Juraeva D, Stroh C, Bruns R, Straub J, Johne A, Scheele J, Heymach JV, Le X.

Tepotinib in Non-Small-Cell Lung Cancer with MET Exon 14 Skipping Mutations.

N Engl J Med. 2020 Sep 3;383(10):931-943. doi: 10.1056/NEJMoa2004407. Epub 2020 May 29.

BACKGROUND: A splice-site mutation that results in a loss of transcription of exon 14 in the oncogenic driver MET occurs in 3 to 4% of patients with non-small-cell lung cancer (NSCLC). We evaluated the efficacy and safety of tepotinib, a highly selective MET inhibitor, in this patient population. **METHODS:** In this open-label, phase 2 study, we administered tepotinib (at a dose of 500 mg) once daily in patients with advanced or metastatic NSCLC with a confirmed MET exon 14 skipping mutation. The primary end point was the objective response by independent review among patients who had undergone at least 9 months of follow-up. The response was also analyzed according to whether the presence of a MET exon 14 skipping mutation was detected on liquid biopsy or tissue biopsy. **RESULTS:** As of January 1, 2020, a total of 152 patients had received tepotinib, and 99 patients had been followed for at least 9 months. The response rate by independent review was 46% (95% confidence interval [CI], 36 to 57), with a median duration of response of 11.1 months (95% CI, 7.2 to could not be estimated) in the combined-biopsy group. The response rate was 48% (95% CI, 36 to 61) among 66 patients in the liquid-biopsy group and 50% (95% CI, 37 to 63) among 60 patients in the tissue-biopsy group; 27 patients had positive results according to both methods. The investigator-assessed response rate was 56% (95% CI, 45 to 66) and was similar regardless of the previous therapy received for advanced or metastatic disease. Adverse events of grade 3 or higher that were considered by investigators to be related to tepotinib therapy were reported in 28% of the patients, including peripheral edema in 7%. Adverse events led to permanent discontinuation of tepotinib in 11% of the patients. A molecular response, as measured in circulating free DNA, was observed in 67% of the patients with matched liquid-biopsy samples at baseline and during treatment. **CONCLUSIONS:** Among patients with advanced NSCLC with a confirmed MET exon 14 skipping mutation, the use of tepotinib was associated with a partial response in approximately half the patients. Peripheral edema was the main toxic effect of grade 3 or higher. (Funded by Merck [Darmstadt, Germany]; **VISION** ClinicalTrials.gov number, NCT02864992.).

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 91.253 **Quartil:** 1 **Categoria:** Medicine, Genral & Internal **Posición:** 1/167

Provencio M, Mazarico Gallego JM, Calles A, Antoñanzas M, Pangua C, Mielgo Rubio X, Nadal E, Castro RL, López-Martín A, Del Barco E, Dómine M, Franco F, Diz P, Sandoval C, Girona ES, Sullivan I, Sala MÁ, Ledo GG, Cucurull M, Mosquera J, Martínez M, Chara LE, Arriola E, Herrera BE, Jarabo JR, Álvarez RÁ, Baena J, **Cao MG**.

Lung cancer patients with COVID-19 in Spain: GRAVID study.

Lung Cancer. 2021 Jul;157:109-115. doi: 10.1016/j.lungcan.2021.05.014. Epub 2021 May 14.

INTRODUCTION: Patients with cancer may be at increased risk of more severe COVID-19 disease; however, prognostic factors are not yet clearly identified. The GRAVID study aimed to describe clinical characteristics, outcomes, and predictors of poor outcome in patients with lung cancer and COVID-19. **METHODS:** Prospective observational study that included medical records of patients with lung cancer and PCR-confirmed COVID-19 diagnosis across 65 Spanish hospitals. The primary endpoint was all-cause mortality; secondary endpoints were hospitalization and admission to intensive care units (ICU). **RESULTS:** A total of 447 patients with a mean age of 67.1 ± 9.8 years were analysed. The majority were men (74.3 %) and current/former smokers (85.7 %). NSCLC was the most frequent type of cancer (84.5 %), mainly as adenocarcinoma (51.0 %), and stage III metastatic or unresectable disease (79.2 %). Nearly 60 % of patients were receiving anticancer treatment, mostly first-line

chemotherapy. Overall, 350 (78.3 %) patients were hospitalized for a mean of 13.4 ± 11.4 days, 9 (2.0 %) were admitted to ICU and 146 (32.7 %) died. Advanced disease and the use of corticosteroids to treat COVID-19 during hospitalization were predictors of mortality. Hospitalized, non-end-of-life stage patients with lymphocytopenia and high LDH had an increased risk of death. Severity of COVID-19 correlated to higher mortality, ICU admission, and mechanical ventilation rates. **CONCLUSIONS:** Mortality rate was higher among patients treated with corticosteroids during hospitalization, while anticancer therapy was not associated with an increased risk of hospitalization or death. Tailored approaches are warranted to ensure effective cancer management while minimizing the risk of exposure to SARS-CoV-2.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 12.531 **Quartil:** 1 **Categoria:** Oncology **Posición:** 18/242

Provencio M, Nadal E, Insa A, García-Campelo MR, Casal-Rubio J, Dómine M, Majem M, Rodríguez-Abreu D, Martínez-Martí A, De Castro Carpeño J, Cobo M, López Vivanco G, Del Barco E, Bernabé Caro R, Viñolas N, Barneto Aranda I, **Viteri S**, Pereira E, Royuela A, Casarrubios M, Salas Antón C, Parra ER, Wistuba I, Calvo V, Laza-Briviesca R, Romero A, Massuti B, Cruz-Bermúdez A.

Neoadjuvant chemotherapy and nivolumab in resectable non-small-cell lung cancer (NADIM): an open-label, multicentre, single-arm, phase 2 trial.

Lancet Oncol. 2020 Nov;21(11):1413-1422. doi: 10.1016/S1470-2045(20)30453-8. Epub 2020 Sep 24.

BACKGROUND: Non-small-cell lung cancer (NSCLC) is terminal in most patients with locally advanced stage disease. We aimed to assess the antitumour activity and safety of neoadjuvant chemoimmunotherapy for resectable stage IIIA NSCLC. **METHODS:** This was an open-label, multicentre, single-arm phase 2 trial done at 18 hospitals in Spain. Eligible patients were aged 18 years or older with histologically or cytologically documented treatment-naive American Joint Committee on Cancer-defined stage IIIA NSCLC that was deemed locally to be surgically resectable by a multidisciplinary clinical team, and an Eastern Cooperative Oncology Group performance status of 0 or 1. Patients received neoadjuvant treatment with intravenous paclitaxel (200 mg/m2) and carboplatin (area under curve 6; 6 mg/mL per min) plus nivolumab (360 mg) on day 1 of each 21-day cycle, for three cycles before surgical resection, followed by adjuvant intravenous nivolumab monotherapy for 1 year (240 mg every 2 weeks for 4 months, followed by 480 mg every 4 weeks for 8 months). The primary endpoint was progression-free survival at 24 months, assessed in the modified intention-to-treat population, which included all patients who received neoadjuvant treatment, and in the per-protocol population, which included all patients who had tumour resection and received at least one cycle of adjuvant treatment. Safety was assessed in the modified intention-to-treat population. This study is registered with ClinicalTrials.gov, NCT03081689, and is ongoing but no longer recruiting patients. **FINDINGS:** Between April 26, 2017, and Aug 25, 2018, we screened 51 patients for eligibility, of whom 46 patients were enrolled and received neoadjuvant treatment. At the time of data cutoff (Jan 31, 2020), the median duration of follow-up was 24·0 months (IQR 21·4-28·1) and 35 of 41 patients who had tumour resection were progression free. At 24 months, progression-free survival was 77·1% (95% CI 59·9-87·7). 43 (93%) of 46 patients had treatment-related adverse events during neoadjuvant treatment, and 14 (30%) had treatment-related adverse events of grade 3 or worse; however, none of the adverse events were associated with surgery delays or deaths. The most common grade 3 or worse treatment-related adverse events were increased lipase (three [7%]) and febrile neutropenia (three [7%]). **INTERPRETATION:** Our results support the addition of neoadjuvant nivolumab to platinum-based chemotherapy in patients with resectable stage IIIA NSCLC. Neoadjuvant chemoimmunotherapy could change the perception of locally advanced lung cancer as a potentially lethal disease to one that is curable. **FUNDING:** Bristol-Myers Squibb, Instituto de Salud Carlos III, European Union's Horizon 2020 research and innovation programme.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 41.316 **Quartil:** 1 **Categoria:** Oncology **Posición:** 5/242

Pudelko L, Jaehrling F, Reusch C, **Vitri S**, Stroh C, Linde N, Sanderson MP, Musch D, Lebrun CJ, Keil M, Esdar C, Blaukat A, **Rosell R**, Schumacher KM, Karachaliou N.
SHP2 Inhibition Influences Therapeutic Response to Tepotinib in Tumors with MET Alterations.
IScience. 2020 Nov 20;23(12):101832. doi: 10.1016/j.isci.2020.101832. eCollection 2020 Dec 18.

Tepotinib is an oral MET inhibitor approved for metastatic non-small cell lung cancer (NSCLC) harboring MET exon 14 (METex14) skipping mutations. Examining treatment-naive or tepotinib-resistant cells with MET amplification or METex14 skipping mutations identifies other receptor tyrosine kinases (RTKs) that co-exist in cells prior to tepotinib exposure and become more prominent upon tepotinib resistance. In a small cohort of patients with lung cancer with MET genetic alterations treated with tepotinib, gene copy number gains of other RTKs were found at baseline and affected treatment outcome. An Src homology 2 domain-containing phosphatase 2 (SHP2) inhibitor delayed the emergence of tepotinib resistance and synergized with tepotinib in treatment-naive and tepotinib-resistant cells as well as in xenograft models. Alternative signaling pathways potentially diminish the effect of tepotinib monotherapy, and the combination of tepotinib with an SHP2 inhibitor enables the control of tumor growth in cells with MET genetic alterations.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.458 **Quartil:** 1 **Categoria:** Multidisplinary Sciences **Posición:** 14/72

Ruiz-Patiño A, Arrieta O, Pino LE, Rolfo C, Ricaurte L, Recondo G, Zatarain-Barron ZL, Corrales L, Martín C, Barrón F, Vargas C, Carranza H, Otero J, Rodriguez J, Sotelo C, Viola L, Russo A, **Rosell R**, Cardona AF.
Mortality and Advanced Support Requirement for Patients With Cancer With COVID-19: A Mathematical Dynamic Model for Latin America.
JCO Glob Oncol. 2020 May;6:752-760. doi: 10.1200/GO.20.00156.

PURPOSE: In the midst of a global pandemic, evidence suggests that similar to other severe respiratory viral infections, patients with cancer are at higher risk of becoming infected by COVID-19 and have a poorer prognosis. **METHODS:** We have modeled the mortality and the intensive care unit (ICU) requirement for the care of patients with cancer infected with COVID-19 in Latin America. A dynamic multistate Markov model was constructed. Transition probabilities were estimated on the basis of published reports for cumulative probability of complications. Basic reproductive number (R0) values were modeled with R using the EpiEstim package. Estimations of days of ICU requirement and absolute mortality were calculated by imputing number of cumulative cases in the Markov model. **RESULTS:** Estimated median time of ICU requirement was 12.7 days, median time to mortality was 16.3 days after infection, and median time to severe event was 8.1 days. Peak ICU occupancy for patients with cancer was calculated at 16 days after infection. Deterministic sensitivity analysis revealed an interval for mortality between 18.5% and 30.4%. With the actual incidence tendency, Latin America would be expected to lose approximately 111,725 patients with cancer to SARS-CoV-2 (range, 87,116-143,154 patients) by the 60th day since the start of the outbreak. Losses calculated vary between < 1% to 17.6% of all patients with cancer in the region. **CONCLUSION:** Cancer-related cases and deaths attributable to SARS-CoV-2 will put a great strain on health care systems in Latin America. Early implementation of interventions on the basis of data given by disease modeling could mitigate both infections and deaths among patients with cancer.

Indexado en: PubMed

Santarpia M, **Aguilar A**, Chaib I, Cardona AF, Fancelli S, Laguia F, **Bracht JWP**, Cao P, **Molina-Vila MA**, Karachaliou N, **Rosell R**.

Non-Small-Cell Lung Cancer Signaling Pathways, Metabolism, and PD-1/PD-L1 Antibodies.

Cancers (Basel). 2020 Jun 5;12(6):1475. doi: 10.3390/cancers12061475.

Treatment of advanced (metastatic) non-small-cell lung cancer (NSCLC) is currently mainly based on immunotherapy with antibodies against PD-1 or PD-L1, alone, or in combination with chemotherapy. In locally advanced NSCLC and in early resected stages, immunotherapy is also employed. Tumor PD-L1 expression by immunohistochemistry is considered the standard practice. Response rate is low, with median progression free survival very short in the vast majority of studies reported. Herein, numerous biological facets of NSCLC are described involving driver genetic lesions, mutations ad fusions, PD-L1 glycosylation, ferroptosis and metabolic rewiring in NSCLC and lung adenocarcinoma (LUAD). Novel concepts, such as immune-transmitters and the effect of neurotransmitters in immune evasion and tumor growth, the nascent relevance of necroptosis and pyroptosis, possible new biomarkers, such as gasdermin D and gasdermin E, the conundrum of K-Ras mutations in LUADs, with the growing recognition of liver kinase B1 (LKB1) and metabolic pathways, including others, are also commented. The review serves to charter diverse treatment solutions, depending on the main altered signaling pathways, in order to have effectual immunotherapy. Tumor PDCD1 gene (encoding PD-1) has been recently described, in equilibrium with tumor PD-L1 (encoded by PDCD1LG1). Such description explains tumor hyper-progression, which has been reported in several studies, and poises the fundamental criterion that IHC PD-L1 expression as a biomarker should be revisited.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.639 **Quartil:** 1 **Categoria:** Oncology **Posición:** 51/242

Straus D, Collins G, Walewski J, Zinzani PL, Grigg A, **Sureda A**, Illes A, Kim TM, Alekseev S, Specht L, Buccheri V, Younes A, Connors J, Forero-Torres A, Fenton K, Gautam A, Purevjal I, Liu R, Gallamini A.

Primary prophylaxis with G-CSF may improve outcomes in patients with newly diagnosed stage III/IV Hodgkin lymphoma treated with brentuximab vedotin plus chemotherapy.

Leuk Lymphoma. 2020 Dec;61(12):2931-2938. doi: 10.1080/10428194.2020.1791846. Epub 2020 Aug 25.

We investigate the impact of granulocyte-colony stimulating factor (G-CSF) primary prophylaxis (G-PP, N = 83) versus no G-PP (N = 579) on safety and efficacy of brentuximab vedotin plus doxorubicin, vinblastine, and dacarbazine (A + AVD) in the ECHELON-1 study of previously untreated stage III/IV classical Hodgkin lymphoma. G-PP was associated with lower incidence of ≥ grade 3 neutropenia (29% versus 70%) and febrile neutropenia (11% versus 21%). Fewer dose delays (35% versus 49%), reductions (20% versus 26%), and hospitalizations (29% versus 38%) were observed. Seven neutropenia-associated deaths occurred in the A + AVD arm; none received G-PP. A + AVD with G-PP was associated with decreased risk of a modified progression-free survival event by 26% compared with A + AVD alone (95% CI: 0.40-1.37). G-PP reduced the rate and severity of adverse events, including febrile neutropenia, reduced treatment delays, dose reductions, and discontinuations, and may thus improve efficacy outcomes. These data support G-PP for all patients treated with A + AVD.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.280 **Quartil:** 3 **Categoria:** Oncology; Hematology
Posición: Oncology 169/242; Hematology 39/76

Smyth LM, Piha-Paul SA, Won HH, Schram A, Saura C, Loi S, Lu J, Shapiro GI, Juric D, Mayer IA, Arteaga CL, de la Fuente MI, Brufksy AM, Spanggaard I, Mau-Sørensen, Arnedos M, Moreno V, Boni V, Sohn J, Schwartzberg LS,**Gonzàlez-Farré X**, Cervantes A,Bidard FC, Gorelick AN, LanmanRB, Nagy RJ, Ulaner GA, Chandarlapaty S, Jhaveri, K, Gavrila EI, Zimel C, Selcuklu SD, Melcer M, Samoila A, Cai Y,Scaltrit M, Mann G,Xu F, Eli LD, Dujka M, Lalani AS, Bryce R, Baselga J,Taylor BS,Solit DB, Meric-Bernstam F, Hyman DM

Efficacy and Determinants of Response to HER Kinase Inhibition in *HER2*-Mutant Metastatic Breast Cancer

Cancer Discov. February 5 2020; 10 (2): 198-213; doi: 10.1158/2159-8290.CD-19-0966

HER2 mutations define a subset of metastatic breast cancers with a unique mechanism of oncogenic addiction o HER2 signaling. We explored activity of the irreversible pan-HER kinase inhibitor neratinib, alone or with fulvestrant, in 81 patients with HER2-mutant metastatic breast cancer. Overall response rate was similar with or without estrogen receptor (ER) blockade. By comparison, progression-free survival and duration of response appeared longer in ER+ patients receiving combination therapy, although the study was not designed for direct comparison. Preexistent concurrent activating HER2 or HER3 alterations were associated with poor treatment outcome. Similarly, acquisition of multiple HER2-activating events, as well as gatekeeper alterations, were observed at disease progression in a high proportion of patients deriving clinical benefit from neratinib. Collectively, these data define HER2 mutations as a therapeutic target in breast cancer and suggest that coexistence of additional HER signaling alterations may promote both de novo and acquired resistance to neratinib. **SIGNIFICANCE:** HER2 mutations define a targetable breast cancer subset, although sensitivity to irreversible HER kinase inhibition appears to be modified by the presence of concurrent activating genomic events in the pathway. These findings have implications for potential future combinatorial approaches and broader therapeutic development for this genomically defined subset of breast cancer.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 39.397 **Quartil:** 1 **Categoria:** Oncology **Posición:** 6/242

Thunnissen E, Kerr KM, Dafni U, Bubendorf L, Finn SP, Soltermann A, Biernat W, Cheney R, Verbeken E, Warth A, Marchetti A, Speel EM, Pokharel S, Quinn AM, Monkhorst K, Navarro A, Madsen LB, Tsourti Z, Geiger T, Kammler R, Peters S, Stahel RA; European Thoracic Oncology Platform Lungscape Consortium.

Collaborators: Stahel RA**, Rosell R**, Blackhall F, Dafni U, Kerr KM, Molina MA, Bubendorf L, Weder W, Thunnissen E, Peters S, Finn S, Hiltbrunner A, Kammler R, Geiger T, Marti N, Tsourti Z, Polydoropoulou V, Zygoura P, Nicolson M, Stevenson DAJ, Mathieson W, Smit E, Radonic T, Soltermann A, Rulle U, Curioni A, Gray SG, Gately K, Barr M, Meldgaard P, Madsen LB, Savic S, Lardinois D, Nackaerts K, Dooms C, Wauters E, Van Der Borght S, Biernat W, Wrona A, Rzyman W, Jassem J, Dienemann H, Muley T, Warth A, Marchetti A, De Luca G, di Lorito A, Dingemans AM, Speel EM, Ruland A, Pokharel S, Cheney R, Ferenczy P, Quinn AM, Franklin L, Baas P, Monkhorst K, van de Wiel B, Camps C, Martorell M, Navarro A.

Programmed death-ligand 1 expression influenced by tissue sample size. Scoring based on tissue microarrays' and cross-validation with resections, in patients with, stage I-III, non-small cell lung carcinoma of the European Thoracic Oncology Platform Lungscape cohort.

Mod Pathol. 2020 May;33(5):792-801. doi: 10.1038/s41379-019-0383-9. Epub 2019 Nov 18.

PD-L1, as assessed by immunohistochemistry, is a predictive biomarker for immuno-oncology treatment in lung cancer. Different scoring methods have been used to assess its status, resulting in a wide range of positivity rates. We use the European Thoracic Oncology Platform Lungscape non-small cell lung carcinoma cohort to explore this issue. PD-L1 expression was assessed via immunohistochemistry on tissue microarrays (up to four cores per case), using the DAKO 28-8 immunohistochemistry assay, following a two-round external quality assessment procedure. All samples were analyzed under the same protocol. Cross-validation of scoring between tissue microarray and whole sections was performed in 10% randomly selected samples. Cutoff points considered: ≥1, 50 (primarily), and 25%. At the two external quality assessment rounds, tissue microarray scoring agreement rates between pathologists were: 73% and 81%. There were 2008 cases with valid

immunohistochemistry tissue microarray results (50% all cores evaluable). Concordant cases at 1, 25, and 50% were: 85, 91, and 93%. Tissue microarray core results were identical for 70% of cases. Sensitivity of the tissue microarray method for 1, 25, and 50% was: 80, 78, and 79% (specificity: 90, 95, 98%). Complete agreement between tissue microarrays and whole sections was achieved for 60% of the cases. Highest sensitivity rates for 1% and 50% cutoffs were detected for higher number of cores. Underestimation of PD-L1 expression on small samples is more common than overestimation. We demonstrated that classification of PD-L1 on small biopsy samples does not represent the overall expression of PD-L1 in all non-small cell cancer carcinoma cases, although the majority of cases are 'correctly' classified. In future studies, sampling more and larger biopsies, recording the biopsy size and tumor load may permit further refinement, increasing predictive accuracy.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 7.842 **Quartil:** 1 **Categoria:** Pathology **Posición:** 6/77

MAXILOFACIAL, IMPLANTOLOGÍA Y ESTÉTICA FACIAL DEXEUS

Nº Articulos indexados: 1 **Factor de Impacto total:** 12.531 **Factor impacto medio x artículo:** 12.531

Arcas-Sanabre AJ, **Gutierrez-Santamaria J**, López-López J, Ayuso-Montero R, Velasco-Ortega E.
Horizontal augmentation of the maxillary alveolar ridge to change the prosthetic profile: Clinical and radiological results of a retrospective study.
J Stomatol Oral Maxillofac Surg. 2020 Feb;121(1):25-29. doi: 10.1016/j.jormas.2019.08.001. Epub 2019 Aug 10.

BACKGROUND: In this retrospective study, we aimed to analyze the clinical and radiological results of compensating the long-term deficiencies in hard and soft tissues of edentulous patients by placing dental implants and performing a horizontal ridge augmentation. **MATERIAL AND METHODS:** We treated patients with edentulous maxillaries (Cawood-Howell type III or IV) by combining 4 implants, or 6 implants, or using zygomatic and conventional anterior implants as appropriate. Simultaneously, horizontal ridge augmentation was performed by combining autologous bone with Bio-Oss and membranes. **RESULTS:** A total of 14 zygomatic and 80 standard implants were used for the rehabilitations in 16 edentulous patients. The success rates were 93.75% and 85.71% for the standard and zygomatic implants, respectively. Also, respective gains of 5.79mm and 3.25mm were obtained at the levels of the midsagittal line and canines, with respective resorption rates of 10% and 8.6% after 20months. **CONCLUSION:** The millimeters gained by performing a horizontal augmentation optimizes the relation between the implant position and the prosthetic profile. This allows the different prostheses to be selected and for rehabilitation to be optimized. In this way, mucosal coverage can be avoided and fixed prosthetic design can be enhanced.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.569 **Quartil:** 4 **Categoria:** Dentistry, Oral Surgery & Medicine **Posición:** 81/92

MEDICINA INTERNA Y FAMILIAR

Nº Articulos indexados: 4 **Factor de Impacto total:** 16.170 **Factor impacto medio x artículo:** 4.043

Combes A, Auzinger G, Capellier G, du Cheyron D, Clement I, Consales G, Dabrowski W, De Bels D, **de Molina Ortiz FJG**, Gottschalk A, Hilty MP, Pestaña D, Sousa E, Tully R, Goldstein J, Harenski K.
ECCO(2)R therapy in the ICU: consensus of a European round table meeting.
Crit Care. 2020 Aug 7;24(1):490. doi: 10.1186/s13054-020-03210-z.

BACKGROUND: With recent advances in technology, patients with acute respiratory distress syndrome (ARDS) and severe acute exacerbations of chronic obstructive pulmonary disease (ae-COPD) could benefit from extracorporeal CO2 removal (ECCO2R). However, current evidence in these indications is limited. A European ECCO2R Expert Round Table Meeting was convened to further explore the potential for this treatment approach. **METHODS:** A modified Delphi-based method was used to collate European experts' views to better understand how ECCO2R therapy is applied, identify how patients are selected and how treatment decisions are made, as well as to identify any points of consensus. **RESULTS:** Fourteen participants were selected based on known clinical expertise in critical care and in providing respiratory support with ECCO2R or extracorporeal membrane oxygenation. ARDS was considered the primary indication for ECCO2R therapy (n = 7), while 3 participants considered ae-COPD the primary indication. The group agreed that the primary treatment goal of ECCO2R therapy in patients with ARDS was to apply ultra-protective lung ventilation via managing CO2 levels. Driving pressure (≥ 14 cmH2O) followed by plateau pressure (Pplat; ≥ 25 cmH2O) was considered the most important criteria for ECCO2R initiation. Key treatment targets for patients with ARDS undergoing ECCO2R included pH (> 7.30), respiratory rate (< 25 or < 20 breaths/min), driving pressure (< 14 cmH2O) and Pplat (< 25 cmH2O). In ae-COPD, there was consensus that, in patients at risk of non-invasive ventilation (NIV) failure, no decrease in PaCO2 and no decrease in respiratory rate were key criteria for initiating ECCO2R therapy. Key treatment targets in ae-COPD were patient comfort, pH (> 7.30-7.35), respiratory rate (< 20-25 breaths/min), decrease of PaCO2 (by 10-20%), weaning from NIV, decrease in HCO3- and maintaining haemodynamic stability. Consensus was reached on weaning protocols for both indications. Anticoagulation with intravenous unfractionated heparin was the strategy preferred by the group. **CONCLUSIONS:** Insights from this group of experienced physicians suggest that ECCO2R therapy may be an effective supportive treatment for adults with ARDS or ae-COPD. Further evidence from randomised clinical trials and/or high-quality prospective studies is needed to better guide decision making.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 9.097 **Quartil:** 1 **Categoria:** Critical Care Medicine **Posición:** 5/36

Burgos M, **Franco J**, **Charte A**.
Síndrome de Löfgren: presentación de dos casos
Med Clin (Barc). 2020 Oct 9;155(7):321-322. doi: 10.1016/j.medcli.2019.06.014. Epub 2019 Aug 22.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.725 **Quartil:** 3 **Categoria:** Medicine, General & Internal **Posición:** 105/167

Milla J, Aceituno A, **Franco J**, **Charte A**.
Cerebelopatía por sífilis: una presentación infrecuente de neurolúes
Neurologia (Engl Ed). 2020 Jul-Aug;35(6):443-444. doi: 10.1016/j.nrl.2018.03.014. Epub 2018 Jun 8.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.109 **Quartil:** 3 **Categoria:** Clinical Neurology **Posición:** 115/208

Rubio-Rivas M, **Franco J**, Corbella X.

Sarcoidosis presenting with and without Löfgren's syndrome: Clinical, radiological and behavioral differences observed in a group of 691patients.

Joint Bone Spine. 2020 Mar;87(2):141-147. doi: 10.1016/j.jbspin.2019.10.001. Epub 2019 Oct 11.

OBJECTIVES: Just a few series of Löfgren's syndrome have been reported. Our aim was to describe the epidemiology and clinical profile of sarcoidosis patients presenting with Löfgren's syndrome vs. non-Löfgren's syndrome. **METHODS:** Retrospective cohort study of 691consecutive patients with sarcoidosis diagnosed at the Bellvitge University Hospital in Barcelona, Spain, between 1976 and 2018. **RESULTS:** Three hundred and nine patients (44.7%) were diagnosed with Löfgren's syndrome and 382with non-Löfgren's syndrome (55.3%). The mean age at diagnosis was 39.8years-old (SD 11.7) vs. 46.6 (SD 14.5) (P<0.001). 249 patients (80.6%) vs. 218 (57.1%) were female (P<0.001), and mostly Caucasians (304, 98.4% vs. 351, 91.9%, P=0.002). Out of the total 309, Löfgren's syndrome patients developed more frequently fever and articular involvement, and 45 (14.6%) presented with isolated periarticular ankle inflammation. When compared, radiological stages at diagnosis were more advanced in non-Löfgren's syndrome patients: stage 0 (2.9% vs. 14.7%), stage I (82.5% vs. 41.4%), stage II (14.6% vs. 29.3%), and stage III/IV (0 vs. 14.7%) (P<0.001). Chronic trend>2years was more prevalent in non-Löfgren's syndrome (66, 22.6% vs. 233, 67.4%; P<0.001), as well as the proportion of patients in whom treatment was needed (58, 18.8% vs. 224, 58.6%; P<0.001). Risk factors related to chronic trend>2 years were older age, stage II at diagnosis and the need of treatment. **CONCLUSIONS:** Löfgren's syndrome is a well-differentiated form of sarcoidosis with persuasive different epidemiological, clinical, radiological and prognostic features.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.929 **Quartil:** 2 **Categoria:** Rheumatology **Posición:** 12/34

MEDICINA NUCLEAR

Nº Articulos indexados: 1 **Factor de Impacto total:** 1.417 **Factor impacto medio x artículo:** 1.417

Plaza López PJ, Suarez Pinera M, Mestre Fusco A, Domenech Brasero B, Pifarré Muntané P, **Rivera Codias E**.
Clinical impact of Ga(68)-DOTATOC PET/CT on neuroendocrine tumors. A preliminary experience.
Endocrinol Diabetes Nutr (Engl Ed). 2020 Dec;67(10):636-642. doi: 10.1016/j.endinu.2019.12.009. Epub 2020 Apr 18. [Article in English, Spanish]

Ga-68-DOTATOC PET/CT is a recently introduced imaging technique for the diagnosis and follow-up of neuroendocrine tumors. A prospective observational study was conducted in seven patients who underwent a Ga-68-DOTATOC PET/CT study. They were suspected of active neuroendocrine tumor lesions, either on initial diagnosis or as a possible recurrence and/or progression of already known tumors. The results of prior imaging studies (MRI, thoracoabdominal CT scan, octreotide...), had been negative or inconclusive. All positive Ga-68-DOTATOC PETs were true positives, confirmed by pathological examination. There were no false positive results. Only one false negative result was found. Ga-68-DOTATOC PET/CC is more sensitive and specific for the detection of primary neuroendocrine tumor lesions, allows for a more complete extension study, and detects recurrences in earlier stages, conditioning changes in staging and surgical treatment. It provides additional information on somatostatin receptor overexpression, which is essential for the indication of PRRT (peptide receptor radionuclide therapy) with Lu177 dotatate.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.417 **Quartil:** 4 **Categoria:** Endocrinology & Metabolism; Nutrition & Dietetics
Posición: Endocrinology & Metabolism 135/146; Nutrition & Dietetics 76/88

NEUMOLOGÍA

Nº Articulos indexados: 1 **Factor de Impacto total:** 4.084 **Factor impacto medio x artículo:** 4.084

De Jong HJI, Voorham J, Scadding GK, Bachert C, Canonica GW, Smith P, Wahn U, Ryan D, **Castillo JA**, Carter VA, Murray RB, Price DB.

Evaluating the real-life effect of MP-AzeFlu on asthma outcomes in patients with allergic rhinitis and asthma in UK primary care.

World Allergy Organ J. 2020 Dec 19;13(12):100490. doi: 10.1016/j.waojou.2020.100490. eCollection 2020 Dec.

BACKGROUND: MP-AzeFlu (Dymista®; spray of azelastine/fluticasone propionate) is the most effective allergic rhinitis (AR) treatment available. Its effect on asthma outcomes in patients with AR and asthma is unknown. **METHODS:** This pre-post historical cohort study, using the Optimum Patient Care Research Database, included patients aged ≥12 years, from UK general practice with active asthma (defined as a recorded diagnosis, with ≥1 prescription for reliever or controller inhaler) in the year before or at the initiation date. The primary study outcome was change in number of acute respiratory events (i.e. exacerbation or antibiotic course for a respiratory event) between baseline and outcome years. The effect size of MP-AzeFlu was quantified as the difference in % of patients that improved and worsened. **RESULTS:** Of the 1,188 patients with AR and asthma included, many had a record of irreversible obstruction (67%), and uncontrolled asthma (70.4%), despite high mean daily doses of reliever/controller therapy and acute oral corticosteroid use, in the year pre-MP-AzeFlu initiation. MP-AzeFlu initiation was associated with fewer acute respiratory events (effect size (e) = 5.8%, $p = 0.0129$) and a reduction in daily use of short-acting β2-agonists, with fewer patients requiring >2 SABA puffs/week (e = 7.7% $p < 0.0001$). More patients had well-controlled asthma 1-year post-MP-AzeFlu initiation (e = 4.1%; $p = 0.0037$), despite a reduction in inhaled corticosteroids (e = 4.8%; $p = 0.0078$). **CONCLUSIONS:** This study provides the first direct evidence of the beneficial effect of MP-AzeFlu on asthma outcomes in co-morbid patients in primary care in the United Kingdom. **TRIAL REGISTRATION:** EUPAS30940. Registered August 13, 2019.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.084 **Quartil:** 3 **Categoria:** Allergy; Immunology
Posición: Allergy 15/28; Immunology 86/162

NEUROLOGÍA

Nº Articulos indexados: 1 **Factor de Impacto total:** 3.109 **Factor impacto medio x artículo:** 3.109

Milla J, **Aceituno A**, Franco J, Charte A.
Cerebelopatía por sífilis: una presentación infrecuente de neurolúes
Neurologia (Engl Ed). 2020 Jul-Aug;35(6):443-444. doi: 10.1016/j.nrl.2018.03.014. Epub 2018 Jun 8.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.109 **Quartil:** 3 **Categoria:** Clinical Neurology **Posición:** 115/208

OBSTETRICIA i GINECOLOGIA
SALUT DE LA DONA DEXEUS

Nº Articulos indexados: 51 **Factor de Impacto total:** 225.921 **Factor impacto medio x artículo:** 4.430

Alcázar JL, Martinez A, Duarte M, Welly A, Marín A, Calle A, Garrido R, **Pascual MA**, Guerriero S.
Two-dimensional hysterosalpingo-contrast-sonography compared to three/four-dimensional hysterosalpingo-contrast-sonography for the assessment of tubal occlusion in women with infertility/subfertility: a systematic review with meta-analysis.
Hum Fertil (Camb). 2020 Jun 2:1-13. doi: 10.1080/14647273.2020.1769204. Online ahead of print.

In this meta-analysis, we aimed to compare the diagnostic accuracy of 2D- and 3D/4D-HyCoSy for the assessment of tubal occlusion in women with infertility, using a laparoscopic tubal chromoperturbation dye test as the reference standard. Studies assessing 2D- and 3D/4D-HyCoSy for the assessment of tubal occlusion in women with infertility were searched from January 1990 to April 2019 using Medline and Web of Science databases by three of the authors, using the terms: 'hysterosalpingo-contrast-sonography', 'sonohysterosalpingography', 'HyCoSy', 'HyFoSy', 'three-dimensional', 'four-dimensional', 'ultrasound', 'tubal patency' and 'tubal occlusion'. Data quality was determined using the QUADAS-2 tool. Thirty articles were included; twenty-one studies used 2D-HyCoSy to assess tubal occlusion, six used 3D/4D-HyCoSy, one study used both techniques but in a different set of patients and two used both techniques in the same patients. The risk of bias for most studies was low as determined by QUADAS-2, except for the patient selection domain. Overall, pooled estimated sensitivity and specificity of 2D-HyCoSy were 86% (95% CI = 80%-91%) and 94% (95% CI = 90%-96%), respectively. The corresponding figures for 3D/4D HyCoSy were 95% (95% CI = 89%-98%) and 89% (95% CI = 82%-94%). High heterogeneity was found for both sensitivity and specificity. No statistically significant differences were found between the methods (p = 0.13). We concluded that 2D-HyCoSy has a similar diagnostic performance to 3D/4D-HyCoSy.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.767 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 43/83; Reproductive Biology 19/30

Anfelter P, Testa A, Chiappa V, Froyman W, Fruscio R, Guerriero S, Alcazar JL, Mascillini F, **Pascual MA**, Sibal M, Savelli L, Zannoni GF, Timmerman D, Epstein E.
Imaging in gynecological disease (17): ultrasound features of malignant ovarian yolk sac tumors (endodermal sinus tumors).
Ultrasound Obstet Gynecol. 2020 Aug;56(2):276-284. doi: 10.1002/uog.22002.

Erratum in
Ultrasound Obstet Gynecol. 2020 Dec;56(6):966.

OBJECTIVE: To describe the clinical and sonographic characteristics of malignant ovarian yolk sac tumors (YSTs). **METHODS:** In this retrospective multicenter study, we included 21 patients with a histological diagnosis of ovarian YST and available transvaginal ultrasound images and/or videoclips and/or a detailed ultrasound report. Ten patients identified from the International Ovarian Tumor Analysis (IOTA) studies had undergone a standardized preoperative ultrasound examination, by an experienced ultrasound examiner, between 1999 and 2016. A further 11 patients were identified through medical files, for whom ultrasound images were retrieved from local image workstations and picture archiving and communication systems. All tumors were described using IOTA terminology. The collected ultrasound images and videoclips were used by two observers for additional characterization of the tumors. **RESULTS:** All cases were pure YSTs, except for one that was a mixed tumor (80% YST and 20% embryonal carcinoma). Median age at diagnosis was 25 (interquartile range (IQR),

19.5-30.5) years. Seventy-six percent (16/21) of women had an International Federation of Gynecology and Obstetrics (FIGO) Stage I-II tumor at diagnosis. Fifty-eight percent (11/19) of women felt pain during the ultrasound examination and one presented with ovarian torsion. Median serum α-fetoprotein (S-AFP) level was 4755 (IQR, 1071-25 303) μg/L and median serum CA 125 level was 126 (IQR, 35-227) kU/L. On ultrasound assessment, 95% (20/21) of tumors were unilateral. The median maximum tumor diameter was 157 (IQR, 107-181) mm and the largest solid component was 110 (IQR, 66-159) mm. Tumors were classified as either multilocular-solid (10/21; 48%) or solid (11/21; 52%). Papillary projections were found in 10% (2/21) of cases. Most (20/21; 95%) tumors were well vascularized (color score, 3-4) and none had acoustic shadowing. Malignancy was suspected in all cases, except in the patient with ovarian torsion, who presented a tumor with a color score of 1, which was classified as probably benign. Image and videoclip quality was considered as adequate in 18/21 cases. On review of the images and videoclips, we found that all tumors contained both solid components and cystic spaces, and that 89% (16/18) had irregular, still fine-textured and slightly hyperechoic solid tissue, giving them a characteristic appearance. **CONCLUSION:** Malignant ovarian YSTs are often detected at an early stage, in young women usually in the second or third decade of life, presenting with pain and markedly elevated S-AFP. On ultrasound, malignant ovarian YSTs are mostly unilateral, large and multilocular-solid or solid, with fine-textured slightly hyperechoic solid tissue and rich vascularization.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Alonso Pacheco L, Ata B, Bettocchi S, Campo R, Carugno J, Checa MA, de Angelis C, Di Spiezio Sardo A, Donnez J, Farrugia M, Ferro J, Franchini M, Garzon S, Gianaroli L, Gergolet M, Gubbini G, Gordts S, Grimbizis G, Haimovich S, Laganà AS, Li TC, Mencaglia L, Rienzi L, Saravelos S, Soares SR, Tanos V, **Ubeda A**, Ubaldi FM, Van Herendael B, Vereczkey A, Vitagliano A, Vitale SG, Zullo F.
Septate uterus and reproductive outcomes: let's get serious about this.
Hum Reprod. 2020 Nov 1;35(11):2627-2629. doi: 10.1093/humrep/deaa230.

Comment in
Hum Reprod. 2020 Nov 1;35(11):2630-2631.

Comment on
Hum Reprod. 2020 Jul 1;35(7):1578-1588.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.211 **Quartil:** 1 **Categoria:** Reproductive Biology; Endocrinology & Metabolism
Posición: Reproductive Biology 4/30; Endocrinology & Metabolism 34/146

Alviggi C, Esteves SC, Orvieto R, Conforti A, La Marca A, Fischer R, Andersen CY, Bühler K, Sunkara SK, **Polyzos NP**, Strina I, Carbone L, Bento FC, Galliano D, Yarali H, Vuong LN, Grynberg M, Drakopoulos P, Xavier P, Llacer J, Neuspiller F, Horton M, Roque M, Papanikolaou E, Banker M, Dahan MH, Foong S, Tournaye H, Blockeel C, Vaiarelli A, Humaidan P, Ubaldi FM; POSEIDON (Patient-Oriented Strategies Encompassing IndividualizeD Oocyte Number) group.
COVID-19 and assisted reproductive technology services: repercussions for patients and proposal for individualized clinical management.
Reprod Biol Endocrinol. 2020 May 13;18(1):45. doi: 10.1186/s12958-020-00605-z.

The prolonged lockdown of health services providing high-complexity fertility treatments -as currently recommended by many reproductive medicine entities- is detrimental for society as a whole, and infertility patients in particular. Globally, approximately 0.3% of all infants born every year are conceived using assisted reproductive technology (ART) treatments. By contrast, the total number of COVID-19 deaths reported so far represents approximately 1.0% of the total deaths expected to occur worldwide over the first three months of the current year. It seems, therefore, that the number of infants expected to be conceived and born -but who will not be so due to the lockdown of infertility services- might be as significant as the total number of deaths attributed to the COVID-19 pandemic. We herein propose remedies that include a prognostic-stratification of more vulnerable infertility cases in order to plan a progressive restart of worldwide fertility treatments. At a time when preventing complications and limiting burdens for national health systems represent relevant issues, our viewpoint might help competent authorities and health care providers to identify patients who should be prioritized for the continuation of fertility care in a safe environment.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.211 **Quartil:** 1 **Categoria:** Reproductive Biology; Endocrinology & Metabolism
Posición: Reproductive Biology 4/30; Endocrinology & Metabolism 34/146

Bardhi E, Blockeel C, Cools W, Santos-Ribeiro S, Racca A, Mackens S, De Vos M, **Polyzos NP**, Popovic-Todorovic B, De Brucker M, Muzii L, Panici PB, Tournaye H, Drakopoulos P.
Is ovarian response associated with adverse perinatal outcomes in GnRH antagonist IVF/ICSI cycles?
Reprod Biomed Online. 2020 Aug;41(2):263-270. doi: 10.1016/j.rbmo.2020.03.010. Epub 2020 Apr 11.

RESEARCH QUESTION: Is there an association between ovarian response and perinatal outcomes? **DESIGN:** A retrospective, single-centre cohort study including all women undergoing their first ovarian stimulation cycle in a gonadotrophin releasing hormone antagonist protocol, with a fresh embryo transfer that resulted in a singleton live birth from January 2009 to December 2015. Patients were categorized into four groups according to the number of oocytes retrieved: one to three (category 1), four to nine (category 2), 10-15 (category 3), or over 15 oocytes (category 4). **RESULTS:** The overall number of patients analysed was 964. No relevant statistical difference was found among neonatal outcomes across the four ovarian response categories. Neonatal weight (in grams) was comparable between all groups (3222 ± 607 versus 3254 ± 537 versus 3235 ± 575 versus 3200 ± 622; P = 0.85, in categories 1, 2, 3 and 4, respectively). No statistically significant differences were found among the ovarian response categories for birth weight z-scores (taking into account neonatal sex and delivery term). The incidence of pre-term birth and low birth weight was comparable across the different ovarian response groups (P = 0.127 and P = 0.19, respectively). Finally, the occurrence of adverse obstetric outcomes did not differ among the ovarian response categories. Multivariate regression analysis revealed that the number of oocytes was not associated with neonatal birth weight. **CONCLUSIONS:** No association was found between ovarian response and adverse perinatal outcomes in antagonist IVF and intracytoplasmic sperm injection cycles. Future, larger scale and prospectively designed investigations are needed to validate these results.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.828 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 17/83; Reproductive Biology 11/30 (Q2)

Boada M, Perez-Poch A, **Ballester M**, **Gárcia S**, González DV, **Rodríguez I**, **Barri PN**, **Veiga A.**
Corrigendum to P-434 (Effect of microgravity on frozen human sperm samples. Can they be sent to space?).
Hum Reprod. 2020 Mar 27;35(3):739. doi: 10.1093/humrep/dez183.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Boada M, Perez-Poch A, **Ballester M**, **García-Monclús S**, González DV, García S, **Barri PN**, **Veiga A**.
Microgravity effects on frozen human sperm samples.
J Assist Reprod Genet. 2020 Sep;37(9):2249-2257. doi: 10.1007/s10815-020-01877-5. Epub 2020 Jul 18.

PURPOSE: Microgravity has severe effects on cellular and molecular structures as well as on metabolic interactions. The aim of this study is to investigate the effects of microgravity (μg) exposure on human frozen sperm samples. **METHODS:** Sibling samples from 15 normozoospermic healthy donors were frozen using glycerol as cryoprotectant and analyzed under microgravity and ground conditions. Microgravity was obtained by parabolic flights using a CAP10B plane. The plane executed 20 parabolic maneuvers with a mean of 8.5 s of microgravity for each parabola. **RESULTS:** Frozen sperm samples preserved in cryostraws and stored in a secure and specific nitrogen vapor cryoshipper do not suffer significant alterations after μg exposure. Comparing the study group (μg) and the control group (1 g), similar results were obtained in the main parameters studied: sperm motility (M/ml) 13.72 ± 12.57 vs 13.03 ± 12.13 (- 0.69 95% CI [- 2.9; 1.52]), progressive a + b sperm motility (%) 21.83 ± 11.69 vs 22.54 ± 12.83 (0.03 95% CI [- 0.08; 0.15]), sperm vitality (%) 46.42 ± 10.81 vs 44.62 ± 9.34 (- 0.04 95% CI [- 0.13; 0.05]), morphologically normal spermatozoa (%) 7.03 ± 2.61 vs 8.09 ± 3.61 (0.12 95% CI [0.01; 0.24]), DNA sperm fragmentation by SCD (%) 13.33 ± 5.12 vs 13.88 ± 6.14 (0.03 95% CI [- 0.09; 0.16]), and apoptotic spermatozoa by MACS (%) 15.47 ± 15.04 vs 23.80 ± 23.63 (- 0.20 95% CI [- 0.66; 1.05]).**CONCLUSION:** The lack of differences obtained between frozen samples exposed to μg and those maintained in ground conditions provides the possibility of considering the safe transport of human male gametes to space. Nevertheless, further research is needed to validate the results and to consider the possibility of creating a human sperm bank outside the Earth. **TRIAL REGISTRATION NUMBER:** ClinicalTrials.gov: NCT03760783.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.412 **Quartil:** 2
Categoria: Obstetrics & Gynecology; Reproductive Biology; Genetics & Heredity
Posición: Obstetrics & Gynecology 25/83; Reproductive Biology 14/30; Genetics & Heredity 84/176

Browne JL, **Korsun N**, **Casas L**, **Rodriguez I**, **Valero B**, **Rincon A**, **Pascual MA**.
"Are changes in breast density during the menstrual cycle relevant? To what?".
Breast Cancer Res Treat. 2020 Sep;183(2):451-458. doi: 10.1007/s10549-020-05788-y. Epub 2020 Jul 15.

PURPOSE: Cancers can be hidden by high breast density (BDen)- the masking effect (ME). BDen is also a modifiable and highly prevalent breast cancer risk (BCR) factor. The purposes of this study were to determine how much glandular volume (GVol), breast volume (BVol) and their ratio: BDen change during the menstrual cycle, and if these changes could affect ME or be relevant to results of interventional studies aiming to diminish BCR using these parameters as surrogates. **METHODS:** We retrieved GVol, BVol and BDen data values obtained from 39,997 right mammograms performed with photon counting technique of 19,904 premenopausal women who reported their first day of last menses (FDLM). Many women had more than one study included over the years (with a different FDLM) but were not studied longitudinally. We segregated women by age (yearly), divided the menstrual cycle in 4 weeks, and assigned results with respect to the FDLM. **RESULTS:** All parameters vary cyclically, with higher values in week 4 (GVol and BDen) or week 1 (BVol). Mean inter-week differences were very small for the three parameters, and diminished with age. However, especially in the youngest women, inter-week differences could be more than 10% for BDen, 15% for GVol, and 50% for BVol. **CONCLUSION:** Small inter-week mean differences almost certainly rule out relevant changes to ME directly

attributable to BDen. However, the possibility of large differences during the menstrual cycle in younger women, who are the ideal targets of interventional studies to diminish BCR, might distort results and should be accounted for.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.872 **Quartil:** 2 **Categoria:** Oncology **Posición:** 95/242

Calaf J, Cancelo MJ, Andeyro M, Jiménez JM, Perelló J, Correa M, **Parera N**, Lete LI, Calvo A, Doval JL, Duarte R, García JL, Colomé C.
Development and Psychometric Validation of a Screening Questionnaire to Detect Excessive Menstrual Blood Loss That Interferes in Quality of Life: The SAMANTA Questionnaire.
J Womens Health (Larchmt). 2020 Jul;29(7):1021-1031. doi: 10.1089/jwh.2018.7446. Epub 2020 Jun 22.

Background: Heavy menstrual bleeding (HMB) affects up to 35% of women at some point in their lives, and has an important impact on their quality of life (QoL). Current techniques to assess and quantify menstrual blood loss are inconvenient and the correlation between actual and perceived blood loss is poor. This study aimed to develop and validate a screening questionnaire in Spanish to identify HMB in women of reproductive age. Methods: The study consisted of two phases: the conceptual development of a set of items to discriminate between women with and without HMB and the assessment of the sensitivity and specificity of these items. Correlation of the screening tool with women's perception of the intensity of bleeding and the interference in their daily life activities was also assessed. Results: An initial set of 46 items were identified, from which 21 items were selected following the cognitive interviews. For the psychometric validation phase, 389 patients were enrolled, of whom 364 were assessable: 211 cases with Pictorial Blood loss Assessment Chart-confirmed excessive menstrual loss (EML) and 153 controls. Six items met entry criteria in the model and together yielded a sensitivity of 86.7% and specificity of 89.5% to identify cases and controls. These items were weighted according to their contribution to the final model to yield a tool that can be scored from 0 to 10 being 3 the cutoff point to diagnose EML that interferes in QoL. Conclusions: The 6-item SAMANTA questionnaire represents a valid screening tool to easily identify women with EML that interfere with QoL.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SSCI)
Factor Impacto: 2.681 **Quartil:** 1
Categoria: Womens Studies; Public, Environmental & Occupational Health
Posición: Womens Studies 13/60; Public, Environmental & Occupational Health 73/ 176

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.681 **Quartil:** 1
Categoria: Medicine, General & Internal; Obstetrics & Gynecology
Posición: Medicine, General & Internal 38/315; Obstetrics & Gynecology 21/121

Cassadó J, Simó M, Rodríguez N, Porta O, Huguet E, Mora I, Girvent M, **Fernández R**, Gich I.
Prevalence of levator ani avulsion in a multicenter study (PAMELA study).
Arch Gynecol Obstet. 2020 Jul;302(1):273-280. doi: 10.1007/s00404-020-05585-4. Epub 2020 May 24.

PURPOSE: The objective is to determine the prevalence of levator ani muscle (LAM) avulsion using four-dimensional ultrasound in primiparous women after vaginal delivery and according to delivery mode. **METHODS:** This prospective, multicenter study included 322 women evaluated at 6-12 months postpartum by four-dimensional transperineal ultrasound to identify levator ani muscle avulsion. The researcher who performed the ultrasound was blinded to all clinical data. Meaningful data about the birth were also recorded: mode of delivery, mother's age and body mass index, duration of second stage, episiotomy, perineal tearing, anesthesia, assistant, head circumference and fetal weight. **RESULTS:** 303 volumes were valid for evaluation.

The overall prevalence of levator ani muscle avulsion was 18.8% (95% CI 14.4-23.2%). In our multivariate analysis, only mode of delivery reached statistical significance as a risk factor for levator ani muscle avulsion ($p < 0.001$). The prevalence according to the different modes of delivery was 7.8% in spontaneous delivery, 28.8% in vacuum-assisted and 51.1% in forceps-assisted delivery. Compared with spontaneous delivery, the OR for LAM avulsion was 12.31 with forceps (CI 95% 5.65-26.80) and 4.78 with vacuum-assisted delivery (CI 95% 2.15-10.63). **CONCLUSIONS:** Levator ani avulsion during vaginal delivery in primiparous women occurs in nearly one in every five deliveries. Delivery mode is a significant and modifiable intrapartum risk factor for this lesion. The incidence is lower in spontaneous delivery and significantly increases when an instrument is used to assist delivery, especially forceps.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.344 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology **Posición:** 53/83

ESHRE guideline: ovarian stimulation for IVF/ICSI(†). TEGGO, Bosch E, Broer S, Griesinger G, Grynberg M, Humaidan P, Kolibianakis E, Kunicki M, La Marca A, Lainas G, Le Clef N, Massin N, Mastenbroek S, **Polyzos N**, Sunkara SK, Timeva T, Töyli M, Urbancsek J, Vermeulen N, Broekmans F.
Ovarian Stimulation
Hum Reprod Open. 2020 May 1;2020(2):hoaa009. doi: 10.1093/hropen/hoaa009. eCollection 2020.

Erratum in
Hum Reprod Open. 2020 Dec 29;2020(4):hoaa067.

Comment in
Hum Reprod Open. 2021 Mar 03;2021(1):hoab005.
Hum Reprod Open. 2021 Mar 03;2021(1):hoab006.

STUDY QUESTION: What is the recommended management of ovarian stimulation, based on the best available evidence in the literature? **SUMMARY ANSWER:** The guideline development group formulated 84 recommendations answering 18 key questions on ovarian stimulation. **WHAT IS KNOWN ALREADY:** Ovarian stimulation for IVF/ICSI has been discussed briefly in the National Institute for Health and Care Excellence guideline on fertility problems, and the Royal Australian and New Zealand College of Obstetricians and Gynaecologist has published a statement on ovarian stimulation in assisted reproduction. There are, to our knowledge, no evidence-based guidelines dedicated to the process of ovarian stimulation. **STUDY DESIGN SIZE DURATION:** The guideline was developed according to the structured methodology for development of ESHRE guidelines. After formulation of key questions by a group of experts, literature searches and assessments were performed. Papers published up to 8 November 2018 and written in English were included. The critical outcomes for this guideline were efficacy in terms of cumulative live birth rate per started cycle or live birth rate per started cycle, as well as safety in terms of the rate of occurrence of moderate and/or severe ovarian hyperstimulation syndrome (OHSS). **PARTICIPANTS/MATERIALS SETTING METHODS:** Based on the collected evidence, recommendations were formulated and discussed until consensus was reached within the guideline group. A stakeholder review was organized after finalization of the draft. The final version was approved by the guideline group and the ESHRE Executive Committee. **MAIN RESULTS AND THE ROLE OF CHANCE:** The guideline provides 84 recommendations: 7 recommendations on pre-stimulation management, 40 recommendations on LH suppression and gonadotrophin stimulation, 11 recommendations on monitoring during ovarian stimulation, 18 recommendations on triggering of final oocyte maturation and luteal support and 8 recommendations on the prevention of OHSS. These include 61 evidence-based recommendations-of which only 21 were formulated as strong recommendations-and 19 good practice points and 4 research-only recommendations. The guideline includes a strong recommendation for the use of either antral follicle count or anti-Müllerian hormone (instead of other ovarian reserve tests) to predict high and poor response to ovarian stimulation. The guideline also includes a strong recommendation for the use of the GnRH antagonist protocol over the GnRH agonist protocols

in the general IVF/ICSI population, based on the comparable efficacy and higher safety. For predicted poor responders, GnRH antagonists and GnRH agonists are equally recommended. With regards to hormone pre-treatment and other adjuvant treatments (metformin, growth hormone (GH), testosterone, dehydroepiandrosterone, aspirin and sildenafil), the guideline group concluded that none are recommended for increasing efficacy or safety. **LIMITATIONS REASON FOR CAUTION:** Several newer interventions are not well studied yet. For most of these interventions, a recommendation against the intervention or a research-only recommendation was formulated based on insufficient evidence. Future studies may require these recommendations to be revised. **WIDER IMPLICATIONS OF THE FINDINGS:** The guideline provides clinicians with clear advice on best practice in ovarian stimulation, based on the best evidence available. In addition, a list of research recommendations is provided to promote further studies in ovarian stimulation. **STUDY FUNDING/COMPETING INTERESTS:** The guideline was developed and funded by ESHRE, covering expenses associated with the guideline meetings, with the literature searches and with the dissemination of the guideline. The guideline group members did not receive payment. F.B. reports research grant from Ferring and consulting fees from Merck, Ferring, Gedeon Richter and speaker's fees from Merck. N.P. reports research grants from Ferring, MSD, Roche Diagnositics, Theramex and Besins Healthcare; consulting fees from MSD, Ferring and IBSA; and speaker's fees from Ferring, MSD, Merck Serono, IBSA, Theramex, Besins Healthcare, Gedeon Richter and Roche Diagnostics. A.L.M reports research grants from Ferring, MSD, IBSA, Merck Serono, Gedeon Richter and TEVA and consulting fees from Roche, Beckman-Coulter. G.G. reports consulting fees from MSD, Ferring, Merck Serono, IBSA, Finox, Theramex, Gedeon-Richter, Glycotope, Abbott, Vitrolife, Biosilu, ReprodWissen, Obseva and PregLem and speaker's fees from MSD, Ferring, Merck Serono, IBSA, Finox, TEVA, Gedeon Richter, Glycotope, Abbott, Vitrolife and Biosilu. E.B. reports research grants from Gedeon Richter; consulting and speaker's fees from MSD, Ferring, Abbot, Gedeon Richter, Merck Serono, Roche Diagnostics and IBSA; and ownership interest from IVI-RMS Valencia. P.H. reports research grants from Gedeon Richter, Merck, IBSA and Ferring and speaker's fees from MSD, IBSA, Merck and Gedeon Richter. J.U. reports speaker's fees from IBSA and Ferring. N.M. reports research grants from MSD, Merck and IBSA; consulting fees from MSD, Merck, IBSA and Ferring and speaker's fees from MSD, Merck, IBSA, Gedeon Richter and Theramex. M.G. reports speaker's fees from Merck Serono, Ferring, Gedeon Richter and MSD. S.K.S. reports speaker's fees from Merck, MSD, Ferring and Pharmasure. E.K. reports speaker's fees from Merck Serono, Angellini Pharma and MSD. M.K. reports speaker's fees from Ferring. T.T. reports speaker's fees from Merck, MSD and MLD. The other authors report no conflicts of interest. **DISCLAIMER:** This guideline represents the views of ESHRE, which were achieved after careful consideration of the scientific evidence available at the time of preparation. In the absence of scientific evidence on certain aspects, a consensus between the relevant ESHRE stakeholders has been obtained. Adherence to these clinical practice guidelines does not guarantee a successful or specific outcome, nor does it establish a standard of care. Clinical practice guidelines do not replace the need for application of clinical judgment to each individual presentation, nor variations based on locality and facility type. ESHRE makes no warranty, express or implied, regarding the clinical practice guidelines and specifically excludes any warranties of merchantability and fitness for a particular use or purpose. (Full disclaimer available at www.eshre.eu/guidelines.) †ESHRE Pages content is not externally peer reviewed. The manuscript has been approved by the Executive Committee of ESHRE.

Indexado en: PubMed

ESHRE Guideline Group on Ovarian Stimulation, Bosch E, Broer S, Griesinger G, Grynberg M, Humaidan P, Kolibianakis E, Kunicki M, Marca A, Lainas G, Clef NL, Massin N, Mastenbroek S, **Polyzos N**, Sunkara SK, Timeva T, Töyli M, Urbancsek J, Vermeulen N, Broekmans F.
Erratum: ESHRE guideline: ovarian stimulation for IVF/ICSI.
Hum Reprod Open. 2020 Dec 29;2020(4):hoaa067. doi: 10.1093/hropen/hoaa067. eCollection 2020.

Erratum for
Hum Reprod Open. 2020 May 01;2020(2):hoaa009.

Indexado en: PubMed

ESHRE COVID-19 Working Group, Vermeulen N, Ata B, Gianaroli L, Lundin K, Mocanu E, Rautakallio-Hokkanen S, Tapanainen JS, **Veiga A**.
A picture of medically assisted reproduction activities during the COVID-19 pandemic in Europe.
Hum Reprod Open. 2020 Aug 17;2020(3):hoaa035. doi: 10.1093/hropen/hoaa035. eCollection 2020

Comment in
Hum Reprod. 2021 Jan 25;36(2):519-521.

STUDY QUESTION: How did coronavirus disease 2019 (COVID-19) impact on medically assisted reproduction (MAR) services in Europe during the COVID-19 pandemic (March to May 2020)? **SUMMARY ANSWER:** MAR services, and hence treatments for infertile couples, were stopped in most European countries for a mean of 7 weeks. **WHAT IS KNOWN ALREADY:** With the outbreak of COVID-19 in Europe, non-urgent medical care was reduced by local authorities to preserve health resources and maintain social distancing. Furthermore, ESHRE and other societies recommended to postpone ART pregnancies as of 14 March 2020. **STUDY DESIGN SIZE DURATION:** A structured questionnaire was distributed in April among the ESHRE Committee of National Representatives, followed by further information collection through email. **PARTICIPANTS/MATERIALS SETTING METHODS:** The information was collected through the questionnaire and afterwards summarised and aligned with data from the European Centre for Disease Control on the number of COVID-19 cases per country. **MAIN RESULTS AND THE ROLE OF CHANCE:** By aligning the data for each country with respective epidemiological data, we show a large variation in the time and the phase in the epidemic in the curve when MAR/ART treatments were suspended and restarted. Similarly, the duration of interruption varied. Fertility preservation treatments and patient supportive care for patients remained available during the pandemic. **LARGE SCALE DATA:** N/A. **LIMITATIONS REASONS FOR CAUTION:** Data collection was prone to misinterpretation of the questions and replies, and required further follow-up to check the accuracy. Some representatives reported that they, themselves, were not always aware of the situation throughout the country or reported difficulties with providing single generalised replies, for instance when there were regional differences within their country. **WIDER IMPLICATIONS OF THE FINDINGS:** The current article provides a basis for further research of the different strategies developed in response to the COVID-19 crisis. Such conclusions will be invaluable for health authorities and healthcare professionals with respect to future similar situations. **STUDY FUNDING/COMPETING INTERESTS:** There was no funding for the study, apart from technical support from ESHRE. The authors had no COI to disclose.

Indexado en: PubMed

Ferrando M, **Coroleu B**, Rodríguez-Tabernero L, Barrenetxea G, Guix C, Sánchez F, Jenkins J; BIRTH study group.
The continuum of ovarian response leading to BIRTH, a real world study of ART in Spain.
Fertil Res Pract. 2020 Jul 29;6:13. doi: 10.1186/s40738-020-00081-4. eCollection 2020.

BACKGROUND: The first biosimilar of recombinant follicle stimulating hormone (rFSH) launched in Europe was Bemfola® in 2014 following a clinical development programme demonstrating efficacy and safety to the satisfaction of the European Medicines Agency. Since then the increasing use of biosimilar rFSH has provided the opportunity to study both effectiveness across the whole population and the variation of rFSH use during routine clinical care in a real-world setting in Spain. **METHODS:** This is a real-world study of 1222 women treated in 26 assisted reproduction treatment centres throughout Spain providing experience of the use of a biosimilar recombinant follicle stimulating hormone in four distinct populations. The four populations studied were poor responders, suboptimal responders, normal responders and oocyte donors. The primary endpoint was the total number of oocytes retrieved. Secondary endpoints included number of days of rFSH stimulation, total dose of rFSH administered, number of MII oocytes, number of fertilized oocytes, quality of embryos, number of embryos transferred, implantation rates, clinical pregnancy rates following embryo transfer, number of multiple pregnancies and number of serious adverse reactions, including moderate-to-severe OHSS. **RESULTS:** Differences were seen across the populations both in the characteristics of the women and ART outcomes suggestive of a continuum of fertility prognosis. In the poor responders, suboptimal responders, normal responders and oocyte donor populations the mean age in years was 39.9 (±SD 3.4), 38.4 (±SD 2.9), 34.4 (±SD 3.3) and 26 (±SD 4.6) respectively and number of oocytes retrieved was 4.1 (±SD 2.7), 8.6 (±SD 6.0), 12.2 (±SD 7.2) and 19.5 (±SD 9.5) respectively. The proportion of embryos graded as best quality was 18.5%, 33.0% and 43.8%, and graded as worst quality was 20.4%, 5.8% and 5.8% for poor responders, suboptimal responders and normal responders respectively. In a similar pattern, for poor responders, suboptimal responders and normal responders the implantation rates were 16.0%, (8/50), 22.4% (49/219), 30.6% (97/317) respectively and clinical pregnancy rates were 23.2% (10/43), 30.4% (59/194) and 37.0% (114/308) respectively. Adverse events were reported in only 7 of 1222 women (0.6%). **CONCLUSIONS:** Overall the results were consistent with the national ART results reported for Spain, hence this study provides reassurance of the clinical effectiveness of a biosimilar rFSH used in a real world setting. **TRIAL REGISTRATION:** ClinicalTrials.gov identifier - NCT02941341.

Indexado en: PubMed

Gaggiotti-Marre S, **Álvarez M**, **González-Foruria I**, **Parriego M**, **Garcia S**, **Martínez F**, **Barri PN**, **Polyzos NP**, **Coroleu B**.

Low progesterone levels on the day before natural cycle frozen embryo transfer are negatively associated with live birth rates.

Hum Reprod. 2020 Jul 1;35(7):1623-1629. doi: 10.1093/humrep/deaa092.

STUDY QUESTION: Are progesterone (P) levels on the day before natural cycle frozen embryo transfer (NC-FET) associated with live birth rate (LBR)? **SUMMARY ANSWER:** Regular ovulatory women undergoing NC-FET with serum P levels <10 ng/ml on the day before blastocyst transfer have a significantly lower LBR than those with serum P levels >10 ng/ml. **WHAT IS KNOWN ALREADY:** The importance of serum P levels around the time of embryo transfer in patients undergoing FET under artificial endometrial preparation has been well established. However, no study has analyzed the importance of serum P levels in patients undergoing FET under a true natural endometrial preparation cycle. **STUDY DESIGN, SIZE, DURATION:** This was a retrospective cohort study including 294 frozen blastocyst transfers under natural cycle endometrial preparation at a university-affiliated fertility centre between January 2016 and January 2019. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** All patients had regular menstrual cycles and underwent NC-FET with their own oocytes. Only patients who had undergone serum P measurement between 8 am and 11 am on the day before FET were included. Patients did not receive any external medication for endometrial preparation or luteal phase support. Patients were divided into two groups according to serum P levels below or above 10 ng/ml on the day before FET. Univariate analysis was carried out to describe and compare the cycle characteristics with reproductive outcomes. To evaluate the effect of P, a multivariable logistic model was fitted for each outcome after adjusting for confounding variables.

MAIN RESULTS AND THE ROLE OF CHANCE: Mean serum P levels on the day before FET were significantly higher in patients who had a live birth compared to those who did not (14.5 ± 7.0 vs 12.0 ± 6.6 ng/ml, 95% CI [0.83; 4.12]). The overall clinical pregnancy rate (CPR) and LBR were 42.9% and 35.4%, respectively. Patients in the higher P group (>10 ng/ml) had a higher LBR (41.1% vs 25.7%: risk difference (RD) 15.4%, 95% CI [5; 26]) and CPR (48.6% vs 33.0%: RD 15.6%, 95% CI [4; 27]). Patients with higher serum P levels on the day before FET (63% of patients) had an improved LBR (odds ratio: 1.05; 95% CI [1.02; 1.09]). Women with serum P levels <10 ng/ml on the day before FET (37% of patients) had significantly higher weights (62.5 ± 9.9 vs 58.1 ± 7.1 kg, 95% CI [1.92; 6.90]) and BMI (22.9 ± 3.6 vs 21.6 ± 2.7 kg/m2, 95% CI [0.42; 2.25]) compared to patients with P levels >10 ng/ml. **LIMITATIONS, REASONS FOR CAUTION:** The main limitation of our study is its retrospective design. Other potential limitations are the detection of LH surge through urine testing and the inclusion of patients who did and did not undergo preimplantation genetic testing for aneuploidies. The protocol used in our institution for monitoring NC-FET does not look for the onset of progesterone secretion by the corpus luteum, and a slow luteinisation process or delay of corpus luteum function cannot be ruled out. **WIDER IMPLICATIONS OF THE FINDINGS:** We provide evidence that a minimum serum P threshold (P >10 ng/ml) might be required for improved reproductive outcomes in NC-FET. This result suggests that there are different mechanisms by which P is produced and/or distributed by each patient. This study also provides an excellent model to evaluate the impact of luteal phase defect through NC-FET. A prospective evaluation to assess whether P supplementation should be individualised according to patient's needs is necessary to support our findings. **STUDY FUNDING/COMPETING INTEREST(S):** No external funding was used, and there are no competing interests.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Garcia-Alfaro P, **Bergamaschi L**, **Marcos C**, **Garcia S**, **Rodríguez I**.
Prevalence of ocular surface disease symptoms in peri- and postmenopausal women.
Menopause. 2020 Sep;27(9):993-998. doi: 10.1097/GME.0000000000001565.

Comment in
Menopause. 2020 Sep;27(9):969-971.

OBJECTIVE: The objective of the study was to determine the prevalence of ocular surface disease (OSD) symptoms and the possible existence of differences between peri- and postmenopausal women, based on the result of the Ocular Surface Disease Index (OSDI). **METHODS:** A transversal observational study based on the results of an e-mail survey between October 2018 and January 2019 involving 1,947 women. The study was performed on a group of peri- and postmenopausal women aged between 45 and 79 years. The personal data in the survey included age, menopause status, age at menopause, prediagnosis of dry eye, undergoing dry eye treatment, and the OSDI questionnaire. Student's t test and Chi squared test were used to compare means or percentages between results on the survey and peri- and postmenopausal women. Finally, a univariate logistic regression was carried out to estimate the prevalence of OSD. The OSDI score is assessed on a scale of 0 to 100.
RESULTS: The mean age of the entire sample was 54.2 ± 6.8 years, with a mean age at menopause of 49.45 ± 4.02 years. The mean OSDI score was 29.2 ± 19.4, considered as moderate dry eye. The global prevalence of OSD symptoms was 64% (1,247/1,947), which increased significantly in postmenopausal women, being 66.8% (820/1,228) (P = 0.001). The probability of OSD symptoms prevalence increases with age (odds ratio: 1.02; 95% CI [1.01-1.03]). The greater the age at menopause, the lower the probability of OSD symptoms prevalence (odds ratio: 0.96 95% CI [0.93-0.99]). **CONCLUSIONS:** Sixty-four percent of the pre- and postmenopausal women

studied had OSD symptoms. There was a correlation between OSD symptoms and age, postmenopause, and earlier age at menopause, which was associated with an increased prevalence. : Video Summary:http://links.lww.com/MENO/A603.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.953 **Quartil:** 2 **Categoria:** Obstetrics & Gynecology **Posición:** 35/83

Giralt Sampedro I, **Carvajal G**, García-Janeras A, Fabà A, Nishishinya Aquino MB.
A severe case of Ramsay Hunt Syndrome treated with acupuncture and related techniques.
Complement Ther Clin Pract. 2020 May;39:101119. doi: 10.1016/j.ctcp.2020.101119. Epub 2020 Feb 24.

Comment in
Complement Ther Clin Pract. 2020 Aug;40:101206.

Ramsay-Hunt syndrome presents with a vesicular eruption in the ear canal or oral cavity associated with ipsilateral peripheral facial paralysis. The cause is reactivation of the herpes zoster virus in the geniculate ganglion. It is the second most frequent cause of non-traumatic peripheral facial paralysis. Acupuncture is a medical procedure endorsed by the WHO with a wide range of indications. It consists of the application of very fine needles in certain points of the body to relieve pain and relieve certain diseases. We present a case of a young woman with unilateral facial paralysis as part of Ramsay Hunt syndrome. She received conventional treatment with acyclovir, analgesics, corticosteroids and eye protection measures 48 h after the onset of symptoms. At three weeks, due to the lack of improvement of the facial paralysis, manual acupuncture was started along with electroacupuncture, plum blossom hammer for facial stimulation and Chinese herbal medicine. An almost complete improvement was obtained at 14 weeks since the onset of the condition. Acupuncture and related techniques may be an effective intervention for this type of condition, and are associated with very few adverse effects.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.446 **Quartil:** 2 **Categoria:** Integrative & Complentary Medicine **Posición:** 14/28

Goncé A, Hawkins-Villarreal A, Salazar L, Guirado L, Marcos MA, Pascual Mancho J, **Prats P**, López M, Eixarch E, Salvia MD, Fortuny C, Figueras F.
Maternal high-dose valacyclovir and its correlation with newborn blood viral load and outcome in congenital cytomegalovirus infection.
J Matern Fetal Neonatal Med. 2020 Nov 3:1-5. doi: 10.1080/14767058.2020.1843016. Online ahead of print.

BACKGROUND/OBJECTIVE: Currently, there is no validated treatment for fetal cytomegalovirus (CMV). Two studies suggest that high-dose maternal valacyclovir decreases fetal viral load and improves outcomes in moderately-symptomatic fetuses. We offered valacyclovir in cases of fetal infection lacking ultrasound abnormalities or with non-severe infection. Maternal tolerability, fetal outcome and newborn blood viral load were evaluated in pregnancies of mothers receiving valacyclovir. **STUDY DESIGN:** We performed a case series including 8 pregnancies with fetal CMV classified as unaffected/mildly-moderately affected. Mothers received valacyclovir (8 g/24h) from fetal infection diagnosis to delivery. Standard newborn evaluation was performed, and viremia was determined in the first 48 h of life and compared according to length of maternal treatment and presence/absence of prenatal anomalies. **RESULTS:** Valacyclovir was administered at a median gestational age of 26.5 weeks (23.8-33.1) in 3 cases without fetal abnormalities, and 5 with mild/moderate abnormalities. Three were 3 first trimester primary infections, one non-primary infection, and in 4 the type of infection was unknown. Valacyclovir was well-tolerated. Fetal features did not progress. Three newborns were asymptomatic,

and one was severely affected (bilateral chorioretinitis). The median newborn viral load (IQR) was 502 IU/mL (231-191781) with lower levels when maternal treatment was administered ≥10 weeks, and in cases without fetal abnormalities [median 234 IU/mL (228-711) vs. 4061 (292-510500) p = .18; and 234 IU/mL (228-379500) vs. 711 IU/mL (292-4061) p = .65, respectively], these differences being non-significant. **CONCLUSIONS:** Fetal CMV lesions remained stable with high-dose maternal valacyclovir. Newborn viral load was unchanged despite treatment duration and fetal/neonatal abnormalities. **SUMMARY:** Fetal cytomegalovirus lesions remained stable with high-dose maternal valacyclovir. Newborn viral load was unchanged despite treatment duration and fetal/newborn abnormalities.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.398 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology **Posición:** 51/83

González-Foruria I, **Gaggiotti-Marre S**, **Álvarez M**, **Martínez F**, **García S**, **Rodríguez I**, **Coroleu B**, **Polyzos NP**.
Factors associated with serum progesterone concentrations the day before cryopreserved embryo transfer in artificial cycles.
Reprod Biomed Online. 2020 Jun;40(6):797-804. doi: 10.1016/j.rbmo.2020.03.001. Epub 2020 Mar 10.

RESEARCH QUESTION: What factors determine serum progesterone concentrations the day before cryopreserved embryo transfer in artificially prepared cycles? **DESIGN:** Retrospective cohort study at a university-affiliated fertility centre including infertile women under 45 years old using own oocytes who underwent a total of 685 single cryopreserved blastocyst transfers under hormonal therapy. Determinants that affected live birth rate (LBR) were analysed using a multivariate logistic regression. Univariate analysis and multivariate linear regression were used to evaluate independent factors that affect serum progesterone concentrations. **RESULTS:** Age (odds ratio [OR] 0.93; 95% confidence interval [CI] 0.89-0.96), duration of oestradiol (OR 0.96; 95% CI 0.92-0.99), serum progesterone concentrations (OR 1.04; 95% CI 1.01-1.08) and patients who underwent preimplantation genetic testing for aneuploidies (PGT-A) (OR 2.17; 95% CI 1.55-3.03) were independently associated with LBR. After univariate analysis, determinants of progesterone concentrations were: age, weight, history of a previous cryopreserved embryo transfer with serum progesterone concentrations <10 ng/ml, and time of blood extraction. The multivariate linear regression showed that increasing age presented a positive correlation with progesterone concentrations (β = 0.11; 95% CI 0.01-0.20). On the contrary, significant negative correlations with progesterone concentrations were shown for a previous history of serum progesterone value <10 ng/ml (β = -3.13; 95% CI -4.45 to -1.81]), higher weight (β = -0.05; 95% CI -0.08 to -0.01) and the time of blood sampling during the day (β = -0.13; 95% CI -0.25 to -0.01). **CONCLUSIONS:** This study adds more evidence regarding the importance of serum progesterone concentrations before frozen embryo transfer (FET). It also showed that body weight, age, time of blood sampling and a history of low progesterone are determinants associated with progesterone concentrations before blastocyst FET.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.828 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 17/83; Reproductive Biology 11/30 (Q2)

González-Foruria I, **Soldevila PB**, **Rodríguez I**, **Rodríguez-Purata J**, **Pardos C**, **García S**, **Pascual MÁ**, **Barri PN**, **Polyzos NP**.
Do ovarian endometriomas affect ovarian response to ovarian stimulation for IVF/ICSI?
Reprod Biomed Online. 2020 Jul;41(1):37-43. doi: 10.1016/j.rbmo.2020.03.013. Epub 2020 Apr 28.

RESEARCH QUESTION: Does the presence of ovarian endometriomas affect ovarian response to ovarian stimulation after adjusting for age and ovarian reserve markers? **DESIGN:** This retrospective cross-sectional

study compared the ovarian response between patients with ovarian endometriomas and women with other infertility factors undergoing their first ovarian stimulation for IVF/intracytoplasmic sperm injection (ICSI). An age-specific nomogram model for the number of oocytes retrieved was built for both groups, and ovarian response was compared after adjusting for age, gonadotrophin dose, anti-Mullerian hormone (AMH) concentration and antral follicle count (AFC). **RESULTS:** A total of 923 patients were included: 101 women with at least one ovarian endometrioma, and 822 patients with other infertility factors. Comparisons of the nomograms for the number of oocytes retrieved demonstrated that response was significantly lower for women with endometrioma when the results were adjusted for age the z-score for the number of oocytes retrieved (-0.49 ± 0.71 versus -0.20 ± 0.86; 95% confidence interval [CI] -0.47 to -0.12) and also after adjustment for the total dose of gonadotrophins and AMH values (z-score mean difference -0.338; 95% CI -0.54, -0.14). When the z-score was adjusted for gonadotrophin dose and AFC, the number of oocytes retrieved was comparable between the two groups (z-score mean difference -0.038; 95% CI -0.34 to 0.27). **CONCLUSIONS:** Ovarian response after ovarian stimulation for IVF/ICSI in women with endometriomas is significantly lower than in controls after adjusting for age, gonadotrophin dose and AMH. Dose and protocol selection for ovarian stimulation in patients with endometrioma should be based on AFC rather than AMH, as the latter may be overestimated.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.828 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 17/83; Reproductive Biology 11/30 (Q2)

Guerriero S, Ajossa S, **Pascual MA**, **Rodriguez I**, Piras A, Perniciano M, Saba L, Paoletti AM, Mais V, Alcazar JL.
Ultrasonographic soft markers for detection of rectosigmoid deep endometriosis.
Ultrasound Obstet Gynecol. 2020 Feb;55(2):269-273. doi: 10.1002/uog.20289.

OBJECTIVES: The aim of this study was to evaluate the use of ultrasound (US) soft markers as a first-line imaging tool to raise suspicion of rectosigmoid (RS) involvement in women suspected of having deep endometriosis. **METHODS:** We included in this prospective observational study all patients with clinical suspicion of deep endometriosis who underwent diagnostic transvaginal US evaluation at our unit from January 2016 to February 2017. Several US soft markers were evaluated for prediction of RS involvement (presence of US signs of uterine adenomyosis, presence of an endometrioma, adhesion of the ovary to the uterus (reduced ovarian mobility), presence of 'kissing ovaries' (KO) and absence of the 'sliding sign'), using as the gold standard expert US examination for the presence of RS endometriosis. **RESULTS:** Included were 333 patients with clinical suspicion of deep endometriosis. Of these, 106 had an US diagnosis of RS endometriosis by an expert. The only significant variables found in the prediction model were absence of the sliding sign (odds ratio (OR), 13.95; 95% CI, 7.7-25.3), presence of KO (OR, 22.5; 95% CI, 4.1-124.0) and the interaction between these two variables (OR, 0.03; 95% CI, 0.004-0.28). Regarding their interaction, RS endometriosis was present when KO was absent and the sliding sign was present in 10% (19/190) of cases, when both KO and the sliding sign were present in 71.4% (5/7) of cases, when both KO and the sliding sign were absent in 60.8% (76/125) of cases and when KO was present and the sliding sign was absent in 54.5% (6/11) of cases. Thus, when the sliding sign was absent and/or KO was present, transvaginal US showed a specificity of 75% (95% CI, 69-80%) and a sensitivity of 82% (95% CI, 73-88%). **CONCLUSIONS:** US findings of absence of the sliding sign and/or presence of KO in patients with clinical suspicion of endometriosis should raise suspicion of RS involvement and indicate referral for expert US examination, with a low rate of false-negative diagnosis. Copyright © 2019 ISUOG. Published by John Wiley & Sons Ltd.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Guerriero S, Conway F, **Pascual MA**, **Graupera B**, Ajossa S, Neri M, Musa E, Pedrassani M, Alcazar JL.
Ultrasonography and Atypical Sites of Endometriosis.
Diagnostics (Basel). 2020 May 27;10(6):345. doi: 10.3390/diagnostics10060345.

In the present pictorial we show the ultrasonographic appearances of endometriosis in atypical sites. Scar endometriosis may present as a hypoechoic solid nodule with hyperechoic spots while umbilical endometriosis may appear as solid or partially cystic areas with ill-defined margins. In the case of endometriosis of the rectus muscle, ultrasonography usually demonstrates a heterogeneous hypoechogenic formation with indistinct edges. Inguinal endometriosis is quite variable in its ultrasonographic presentation showing a completely solid mass or a mixed solid and cystic mass. The typical ultrasonographic finding associated with perineal endometriosis is the presence of a solid lesion near to the episiotomy scar. Under ultrasonography, appendiceal endometriosis is characterized by a solid lesion in the wall of the small bowel, usually well defined. Superficial hepatic endometriosis is characterized by a small hypoechoic lesion interrupting the hepatic capsula, usually hyperechoic. Ultrasound endometriosis of the pancreas is characterized by a small hypoechoic lesion while endometriosis of the kidney is characterized by a hyperechoic small nodule. Diaphragmatic endometriosis showed typically small hypoechoic lesions. Only peripheral nerves can be investigated using ultrasound, with a typical solid appearance. In conclusion, ultrasonography seems to have a fundamental role in the majority of endometriosis cases in "atypical" sites, in all the cases where "typical" clinical findings are present.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.706 **Quartil:** 2 **Categoria:** Medicine, General & Internal **Posición:** 45/167

Kuebler B, Aran B, Flores R, Pérez-Jurado LA, **Veiga A**, Corominas R, Cuscó I.
Generation of induced pluripotent stem cells (iPSCs) by retroviral transduction of skin fibroblasts from four patients suffering Williams-Beuren syndrome (7q11.23 deletion).
Stem Cell Res. 2020 Dec;49:102087. doi: 10.1016/j.scr.2020.102087. Epub 2020 Nov 16.

Skin fibroblasts were obtained from four patients with Williams-Beuren syndrome (WBS) carrying the typical 1.5 Mb or 1.8 Mb deletion at the 7q11.23 genomic region. Induced pluripotent stem cells (iPSCs) were generated by retroviral infection of fibroblasts with polycystronic vectors. The generated iPSC clones ESi059A, ESi060B and ESi068A had the 1.5 Mb deletion of 7q11.23 and ESi069A the 1.8 Mb, with no novel additional genomic alterations, stable karyotype, expressed pluripotency markers and could differentiate towards the three germ layers in vitro via embryoid body formation and in vivo by teratoma formation. WBS patient's lines are a valuable resource for in vitro modelling of WBS.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 2.020 **Quartil:** 4 **Categoria:** Biotechnology & Applied Microbiology; Cell & Tissue Engineering
Posición: Biotechnology & Applied Microbiology 131/159; Cell & Tissue Engineering 27/29

Kuebler B, Aran B, Flores R, Pérez-Jurado LA, **Veiga A**, Cuscó I, Corominas R.
Derivation of induced pluripotent stem cells (iPSCs) by retroviral transduction of skin fibroblasts from four patients suffering 7q11.23 microduplication syndrome.
Stem Cell Res. 2020 Dec;49:102092. doi: 10.1016/j.scr.2020.102092. Epub 2020 Nov 19.

Skin fibroblasts were obtained from four patients with 7q11.23 microduplication syndrome carrying the reciprocal rearrangement of Williams-Beuren syndrome at the 7q11.23 genomic region. Induced pluripotent stem cells (iPSCs) were generated by retroviral infection of fibroblasts with polycystronic vectors. The generated iPSC clones ESi058B, ESi057B, ESi070A and ESi071A had the 7q11.23 duplication with no additional genomic alterations, a stable karyotype, expressed pluripotency markers and could differentiate towards the three germ layers in vitro via embryoid body formation and in vivo by teratoma formation. Patient's derived iPSCs are a valuable resource for in vitro modeling of 7q11.23 microduplication syndrome. Resource Table.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 2.020 **Quartil:** 4 **Categoria:** Biotechnology & Applied Microbiology; Cell & Tissue Engineering
Posición: Biotechnology & Applied Microbiology 131/159; Cell & Tissue Engineering 27/29

Lasheras G, Mestre-Bach G, **Clua E**, **Rodríguez I**, Farré-Sender B.
Cross-Border Reproductive Care: Psychological Distress in A Sample of Women Undergoing In Vitro Fertilization Treatment with and without Oocyte Donation.
Int J Fertil Steril. 2020 Jul;14(2):129-135. doi: 10.22074/ijfs.2020.5997. Epub 2020 Jul 15.

BACKGROUND: Cross-border reproductive care (CBRC) refers to the movement of patients to foreign countries for fertility treatment. Limited evidence indicates that this phenomenon is associated with a risk of psychological distress, but few studies on the psychological impact of CBRC are currently available. The aim of this study was to compare the anxiety and depression levels of a group of cross-border patients with a local Spanish patient group, both of which underwent in vitro fertilization (IVF) treatment. We also sought to explore the clinical, sociodemographic and personality profiles of the CBRC group and local women. **MATERIALS AND METHODS:** This present cross-sectional study was conducted on 161 infertile females (71 CBRC patients and 90 local women) who were undergoing IVF treatment. The following questionnaires were used to collect data: Spielberger State Anxiety Inventory (STAI-S), the Beck Depression Inventory-II (BDI-II) and the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ). Sociodemographic, clinical, reproductive and CBRC variables were also recorded. **RESULTS:** CBRC patients, specifically CBRC oocyte recipients, showed higher levels of anxiety compared to local women. However, no significant differences in depression scores were found between both groups. Finally, when analysing personality, the Activity scale scores of the ZKPQ were found to be higher in CBRC oocyte recipients, which indicated a greater tendency for general activity and higher energy levels. **CONCLUSION:** CBRC oocyte recipient women may have greater vulnerability to anxiety than local women prior to infertility treatment. Screening and psychological support protocols for anxiety in this population should be considered.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 0.471 **Quartil:** 4 **Categoria:** Obstetrics & Gynecology **Posición:** 74/83

de Leeuw RA, Burger NB, Ceccaroni M, Zhang J, Tuynman J, Mabrouk M, **Barri Soldevila P**, Bonjer HJ, Ankum P, Huirne J.
COVID-19 and Laparoscopic Surgery: Scoping Review of Current Literature and Local Expertise.
JMIR Public Health Surveill. 2020 Jun 23;6(2):e18928. doi: 10.2196/18928.

BACKGROUND: The current coronavirus disease (COVID-19) pandemic is holding the world in its grip. Epidemiologists have shown that the mortality risks are higher when the health care system is subjected to pressure from COVID-19. It is therefore of great importance to maintain the health of health care providers and

prevent contamination. An important group who will be required to treat patients with COVID-19 are health care providers during semiacute surgery. There are concerns that laparoscopic surgery increases the risk of contamination more than open surgery; therefore, balancing the safety of health care providers with the benefit of laparoscopic surgery for the patient is vital. **OBJECTIVE:** We aimed to provide an overview of potential contamination routes and possible risks for health care providers; we also aimed to propose research questions based on current literature and expert opinions about performing laparoscopic surgery on patients with COVID-19. **METHODS:** We performed a scoping review, adding five additional questions concerning possible contaminating routes. A systematic search was performed on the PubMed, CINAHL, and Embase databases, adding results from gray literature as well. The search not only included COVID-19 but was extended to virus contamination in general. We excluded society and professional association statements about COVID-19 if they did not add new insights to the available literature. **RESULTS:** The initial search provided 2007 records, after which 267 full-text papers were considered. Finally, we used 84 papers, of which 14 discussed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Eight papers discussed the added value of performing intubation in a low-pressure operating room, mainly based on the SARS outbreak experience in 2003. Thirteen papers elaborated on the risks of intubation for health care providers and SARS-CoV-2, and 19 papers discussed this situation with other viruses. They conclude that there is significant evidence that intubation and extubation is a high-risk aerosol-producing procedure. No papers were found on the risk of SARS-CoV-2 and surgical smoke, although 25 papers did provide conflicting evidence on the infection risk of human papillomavirus, hepatitis B, polio, and rabies. No papers were found discussing tissue extraction or the deflation risk of the pneumoperitoneum after laparoscopic surgery. **CONCLUSIONS:** There seems to be consensus in the literature that intubation and extubation are high-risk procedures for health care providers and that maximum protective equipment is needed. On the other hand, minimal evidence is available of the actual risk of contamination of health care providers during laparoscopy itself, nor of operating room pressure, surgical smoke, tissue extraction, or CO2 deflation. However, new studies are being published daily from current experiences, and society statements are continuously updated. There seems to be no reason to abandon laparoscopic surgery in favor of open surgery. However, the risks should not be underestimated, surgery should be performed on patients with COVID-19 only when necessary, and health care providers should use logic and common sense to protect themselves and others by performing surgery in a safe and protected environment.

Indexado en: PubMed/WOS/JCR/JCI/ Journal Sciences Citation Index (JSCI)
Factor Impacto: 4.112 **Quartil:** 1 **Categoria:** Public, Environmental & Occupational Health **Posición:** 28/176

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.112 **Quartil:** 2 **Categoria:** Public, Environmental & Occupational Health **Posición:** 51/203

Maiz N, Tajada M, **Rodríguez MÁ**, Irasarri A, Molina FS, Tubau A, Burgos J, Alonso I, Plasencia W, Rodó C, Pijoan JI, Belar M, De Paco Matallana C.

Three-dimensional ultrasonography for advanced neurosonography (neurosofe-3D): Validation of a brain volume acquisition guideline.

Acta Obstet Gynecol Scand. 2021 Jan;100(1):84-90. doi: 10.1111/aogs.13996. Epub 2020 Oct 8.

INTRODUCTION: This study aimed to evaluate the quality of the brain volumes acquired following an evidence-based guideline for the acquisition of brain volumes. **MATERIAL AND METHODS:** This was a prospective multicenter study. Five centers recruited five cases each, acquiring two volumes per case, at different gestational age ranges. From the collected volumes, 10 operators performed an advanced neurosonography of each case. The evaluable anatomic structures were counted in each volume and expressed as a percentage. The

results were compared with those obtained in a previous study where no recommendations had been made for the acquisition of the volumes. **RESULTS:** Five hundred evaluations were included in the study. In the axial plane, 91.5% of the structures were satisfactorily evaluated, 81.8% in the coronal plane and 89.9% in the sagittal plane. These results were significantly better than those obtained in a previous study where the volumes had been acquired without any guidelines and the percentage of evaluable structures were 80% (P < .001), 67.1% (P < .001) and 55.1% (P < .001) in the axial, coronal and sagittal planes, respectively. **CONCLUSIONS:** The application of an evidence-based guideline for the acquisition of brain volumes improves the quality of these by increasing the number of evaluable structures in the volume.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.636 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology **Posición:** 19/83

Malacarne E, **Devesa M**, **Martinez F**, **Rodriguez I**, **Coroleu B**.
COH outcomes in breast cancer patients for fertility preservation: a comparison with the expected response by age.
J Assist Reprod Genet. 2020 Dec;37(12):3069-3076. doi: 10.1007/s10815-020-01944-x. Epub 2020 Sep 18.

PURPOSE: Breast cancer is the most common cancer diagnosed during childbearing age, and fertility preservation is becoming increasingly more essential. However, recent studies indicate a possible poorer response to controlled ovarian hyperstimulation (COH) in cancer patients than in non-cancer controls and a negative impact of BRCA mutations on female fertility. This study aims to evaluate ovarian response and the number of mature oocytes (MII) vitrified in women with breast cancer, with or without BRCA mutation, comparing them to the expected response according to an age-related nomogram. **METHODS:** This is a retrospective observational study involving sixty-one breast cancer patients who underwent COH for oocyte cryopreservation. The age-specific nomogram was built using 3871 patients who underwent COH due to oocyte donation, fertility preservation for non-medical reasons, or FIVET for male factor exclusively. **RESULTS:** The mean number of oocytes retrieved was 13.03, whereas the mean number of MII oocytes was 10.00. After the application of the z-score, no statistically significant differences were found compared with the expected response in the general population, neither by dividing patients according to the presence or absence of BRCA mutation nor according to the phase in which they initiated stimulation. **CONCLUSION:** The results obtained do not support the notion of a negative impact of the BRCA mutation on the ovarian response of women with breast cancer. Women with breast cancer undergoing COH for fertility preservation can expect the ovarian response predicted for their age.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.412 **Quartil:** 2 **Categoria:** Genetics & Heredity; Obstetrics & Gynecology; Reporductive Biology
Posición: Genetics & Heredity 84/176; Obstetrics & Gynecology 25/83; Reporductive Biology 14/30

Martínez F, **Clúa E**, **García S**, **Coroleu B**, **Polyzos NP**, **Barri PN**.
Does LH suppression by progesterone-primed ovarian stimulation compared with GnRH antagonist affect live birth rate among oocyte recipients?
Reprod Biomed Online. 2020 May;40(5):661-667. doi: 10.1016/j.rbmo.2020.01.016. Epub 2020 Jan 25.

RESEARCH QUESTION: Is live birth rate among recipients of donated oocytes different depending on mode of treatment for endogenous LH suppression administered to oocyte donors during ovarian stimulation? **DESIGN:** A retrospective cohort study of recipients of freshly donated oocytes from oocyte donors who underwent ovarian stimulation with gonadotrophins at a private, university-based infertility clinic between January 2017

and March 2018. For endogenous LH suppression, oocyte donors received daily injections of gonadotrophin releasing hormone antagonist ganirelix (GNR) or daily oral 75 µg desogestrel (DSG) until triggering with 0.2 mg of triptorelin. Three hundred recipient cycles of freshly donated oocytes were included: 154 from oocyte donor DSG cycles and 146 from oocyte donor GNR cycles. **RESULTS:** Comparison of basal characteristics of oocyte donors showed no differences in mean age, anti-Müllerian hormone levels and body mass index between the oocyte donor DSG p and oocyte donor GNR groups, respectively. Similarly, no differences were observed among mean age of recipients and body mass index. Out of 300 fresh embryo transfers, 190 clinical pregnancies (63.3%) and 150 live births (50%) were achieved. Per embryo transfer clinical pregnancy rate was 66.2% in the DSG recipient group and 60.3% in the GNR recipient group (P = 0.338). Live birth rates were not significantly different between both groups (48.7% among DSG recipient group and 51.4% among GNR recipient group; P = 0.729). **CONCLUSIONS:** Live birth rate among recipients of donated oocytes does not differ depending on the mode of treatment for endogenous LH suppression administered to the oocyte donors during ovarian stimulation. This information is reassuring and will be of interest to teams using these kinds of protocols, although further research is needed.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.828 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 17/83; Reproductive Biology 11/30 (Q2)

Mateo S, Vidal F, **Carrasco B**, **Rodríguez I**, **Coroleu B**, **Veiga A**, **Boada M**.
Morphokinetics and in vitro developmental potential of monopronucleated ICSI zygotes until the blastocyst stage.
Zygote. 2020 Jun;28(3):217-222. doi: 10.1017/S0967199420000027. Epub 2020 Mar 11.

The aim of this study was to provide a more comprehensive understanding of 1PN intracytoplasmic sperm injection (ICSI) zygotes. To achieve this objective, we assessed whether all 1PN-derived embryos showed a similar morphokinetic pattern, and if the morphokinetic behaviour of 1PN-derived embryos was comparable with that of 2PN-derived embryos. In total, 149 1PN ICSI zygotes (study group) and 195 2PN ICSI zygotes (control group) were included in the study. Embryo development potential was evaluated in terms of blastocyst rate. Morphokinetic parameters, including the pronucleus diameter and kinetics of in vitro development, were also analyzed. Embryos derived from 1PN ICSI zygotes showed impaired development compared with 2PN-derived embryos, with blastocyst rates of 28.9% and 67.2%, respectively. The diameter of the pronucleus of 1PN zygotes was larger than that of 2PN zygotes. When compared with 2PN-derived embryos, those derived from 1PN zygotes had a visible pronucleus for a shorter time, in addition to a longer syngamy time and slower kinetic behaviour from two to nine cells. When 1PN-derived blastocysts and 2PN-derived blastocysts were compared, the developmental kinetics were similar in both groups, except for a delayed and longer duration of the compaction phase in 1PN-derived embryos. In conclusion, monopronucleated ICSI zygotes present differences in developmental capacity and morphokinetic behaviour compared with 2PN ICSI zygotes, showing particular morphokinetic parameters related to pronucleus formation. Only the 1PN ICSI-derived embryos that reached the blastocyst stage have similar morphokinetic development to blastocysts from 2PN zygotes.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.442 **Quartil:** 4 **Categoria:** Cell Biology; Developmental Biology; Reproductive Biology
Posición: Cell Biology 187/195; Developmental Biology 37/41; Reproductive Biology 28/30

Mauri D, Kamposioras K, Tzachanis D, Tolia M, Valachis A, Dambrosio M, Alongi F, De Mello RA, Lövey J, Anthoney A, Christopoulos C, Saraireh HH, Kountourakis P, Kampletsas E, Tsali L, Tsakiridis T, Kosovitsas I, Soukovelos A, Lymperatou D, **Polyzos N**, Zarkavelis G.

Patient and family support in the era of fake e-medicine: food for thought from an international consensus panel.

ESMO Open. 2020 Apr;5(2):e000696. doi: 10.1136/esmoopen-2020-000696.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.540 **Quartil:** 1 **Categoria:** Oncology **Posición:** 54/242

Montoya-Botero P, **Martinez F**, **Rodríguez-Purata J**, **Rodríguez I**, **Coroleu B**, **Polyzos NP**.

The effect of type of oral contraceptive pill and duration of use on fresh and cumulative live birth rates in IVF/ICSI cycles.

Hum Reprod. 2020 Apr 28;35(4):826-836. doi: 10.1093/humrep/dez299.

Erratum in
Hum Reprod. 2021 Mar 18;36(4):1159-1161.

STUDY QUESTION: Are there any differences in the fresh (LB) and cumulative live birth rates (CLBR) of women undergoing controlled ovarian stimulation (COS) for IVF/ICSI following pretreatment with different types of oral contraceptive pills (OCP) for different durations as compared to no-OCP? **SUMMARY ANSWER:** OCP administration for an interval of 12- to 30-day treatment period and with a 5-day washout period does not affect clinical pregnancy, LB nor cumulative LB in patients undergoing COS for an IVF cycle. **WHAT IS KNOWN ALREADY:** The use of OCP is an effective way of treatment planning in IVF/ICSI cycles, but published evidence about its effect on pregnancy and LBR is inconsistent, some studies finding decreased rates but others no difference. **STUDY DESIGN, SIZE, DURATION:** This is a retrospective analysis carried out in a University-affiliated tertiary centre between January 2009 and December 2017. Overall, 4116 infertile women between 18 and 45 years, who underwent their first ovarian stimulation cycle in our centre, were included. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** Patients were categorised into two groups as receiving OCP (n = 3517) or not (no OCP, n = 599). All patients with OCP pretreatment initiated controlled ovarian stimulation (COS) 5 days post-pill. Overall, two types of OCP were used at the study's centre: ethinylestradiol (EE) 30 µg/desogestrel 150 µg, a third-generation progesterone; or EE 30 µg/drospirenone 3 mg, a fourth-generation progestin with mild antiandrogenic activity. **MAIN RESULTS AND THE ROLE OF CHANCE**: A total of n = 4116 patients were analysed, (OCP n = 3517 and non-OCP n = 599). The use of OCP was independently associated with a small increase in the number of oocytes retrieved after adjusting for age, BMI, use of OCP, cause of infertility, initial dose (IU), type of gonadotropin, stimulation days, total stimulation units (total IU) (β 0.22, 95% CI 0.12-0.31). Cumulative LBRs were comparable between groups OCP versus non-OCP (32.4 versus 31.6%, P = 0.712). Following adjustment for age, BMI, infertility diagnosis, starting and total dose, type of gonadotropin, total days of stimulation, type of insemination, number of oocytes retrieved, day of transfer and number of embryos transferred in a multiple logistic analysis, patients using OCPs had a similar probability of achieving a LB as compared with patients not-using OCPs following fresh embryo transfer (ORadj 0.89, 95% CI 0.69-1.15) and a similar probability for CLBR after the use of fresh and frozen embryos (ORadj 0.94, 95% CI 0.73-1.21). No differences were observed in ovarian stimulation and clinical outcomes between drospirenone and desogestrel OCP groups. **LIMITATIONS, REASONS FOR CAUTION:** Limitations are related to the retrospective nature of the study; despite the sample size, the adjustments and the multivariable regression analysis conducted, we cannot exclude the presence of confounding bias. OCP administration was not randomly assigned, not allowing to exclude the presence of selection bias. Lastly, we only used two types of OCP with durations and washout periods as per institution protocol. Therefore, we cannot exclude that longer duration of administration, a different type of OCP or different pill-free interval might have had an alternative effect on LBR or CLBR; thus, the generalizability of this study's results should be considered with caution. **WIDER IMPLICATIONS OF THE**

FINDINGS: Our study provides reassuring evidence that the use of 12-30 days OCP for cycle programming, prior to IVF, does not decrease the chance of live birth and cumulative live birth rates. **STUDY FUNDING/COMPETING INTEREST(S):** No external funding was used for this study. This research was performed under the auspices of 'Càtedra d'Investigació en Obstetrícia I Ginecologia' of the Department of Obstetrics, Gynaecology and Reproductive Medicine, Hospital Universitario Dexeus, Universitat Autònoma de Barcelona. The authors report no conflict of interest associated with the current study. **TRIAL REGISTRATION NUMBER:** NA.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Mula R, **Meler E**, **García S**, **Albaigés G**, **Serra B**, **Scazzocchio E**, **Prats P**.
"Screening for small-for-gestational age neonates at early third trimester in a high-risk population for preeclampsia".
BMC Pregnancy Childbirth. 2020 Sep 25;20(1):563. doi: 10.1186/s12884-020-03167-5.

BACKGROUND: Strategies to improve prenatal detection of small-for-gestational age (SGA) neonates are necessary because its association with poorer perinatal outcome. This study evaluated, in pregnancies with first trimester high risk of early preeclampsia, the performance of a third trimester screening for SGA combining biophysical and biochemical markers. **METHODS:** This is a prospective longitudinal study on 378 singleton pregnancies identified at high risk of early preeclampsia according to a first trimester multiparametric algorithm with the cutoff corresponding to 15% false positive rate. This cohort included 50 cases that delivered SGA neonates with birthweight < 10th centile (13.2%) and 328 cases with normal birthweight (86.8%). At 27-30 weeks' gestation, maternal weight, blood pressure, estimated fetal weight, mean uterine artery pulsatility index and maternal biochemical markers (placental growth factor and soluble FMS-Like Tyrosine Kinase-1) were assessed. Different predictive models were created to evaluate their performance to predict SGA neonates.
RESULTS: For a 15% FPR, a model that combines maternal characteristics, estimated fetal weight, mean uterine artery pulsatility index and placental growth factor achieved a detection rate (DR) of 56% with a negative predictive value of 92.2%. The area under receiver operating characteristic curve (AUC) was 0.79 (95% confidence interval (CI), 0.72-0.86). The DR of a model including maternal characteristics, estimated fetal weight and mean uterine artery pulsatility index was 54% (AUC, 0.77 (95% CI, 0.70-0.84)). The DR of a model that includes maternal characteristics and placental growth factor achieved a similar performance (DR 56%, AUC 0.75, 95% CI (0.67-0.83)). **CONCLUSIONS:** The performance of screening for SGA neonates at early third trimester combining biophysical and biochemical markers in a high-risk population is poor. However, a high negative predictive value could help in reducing maternal anxiety, avoid iatrogenic interventions and propose a specific plan for higher risk patients.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.007 **Quartil:** 2 **Categoria:** Obstetrics & Gynecology **Posición:** 32/83

Munné S, Spinella F, Grifo J, Zhang J, **Beltran MP**, Fragouli E, Fiorentino F.
Clinical outcomes after the transfer of blastocysts characterized as mosaic by high resolution Next Generation Sequencing- further insights.
Eur J Med Genet. 2020 Feb;63(2):103741. doi: 10.1016/j.ejmg.2019.103741. Epub 2019 Aug 21.

OBJECTIVE: To determine the pregnancy outcome potential of euploid, mosaic and aneuploid embryos. **DESIGN:** Retrospective study. **SETTING:** Reference genetics laboratories. **PATIENT(S):** 2654 PGT-A cycles with euploid characterized embryo transfers, 253 PGT-A cycles with transfer of embryos characterized as mosaic, and 10 PGT-A cycles with fully abnormal embryo transfers. **INTERVENTION(S):** Blastocysts were assessed by trophectoderm (TE) biopsy followed by PGT-A via array CGH or NGS. **MAIN OUTCOME MEASURE(S):** Implantation, miscarriage, ongoing implantation rates (OIR), and karyotype if available, were compared between different embryo groups, and between the two PGT-A techniques. **RESULTS:** The Ongoing Pregnancy Rate (OPR)/transfer was significantly higher for NGS-classified euploid embryos (85%) than for aCGH ones (71%) ($p < 0.001$), but the OPR/cycle was similar (63% vs 59%). NGS-classified mosaic embryos resulted in 37% OPR/cycle ($p < 0.001$ compared to euploid). Mosaic aneuploid embryos with <40% abnormal cells in the TE sample had an OIR of 50% compared to 27% for mosaics with 40-80% abnormal cells in the TE, and 9% for complex mosaic embryos. All the karyotyped ongoing pregnancies (n = 29) were euploid. Transfers of embryos classified as aneuploid via aCGH (n = 10) led to one chromosomally abnormal pregnancy. **CONCLUSION(S):** NGS-classified euploid embryos yielded higher OIRs but similar OPRs/cycle compared to aCGH. NGS-classified mosaic embryos had reduced potential to reach term, compared to euploid embryos. If they did reach term, those with karyotype results available were euploid. Embryos carrying uniform aneuploidies affecting entire chromosomes were mostly unable to implant after transfer, and the one that implanted ended up in a chromosomally abnormal live birth.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 2.708 **Quartil:** 3 **Categoria:** Genetics & Heredity **Posición:** 107/176

Neumann K, Sermon K, Bossuyt P, Goossens V, Geraedts J, Traeger-Synodinos J, **Parriego M**, Schmutzler A, van der Ven K, Rudolph-Rothfeld W, Vonthein R, Griesinger G.

An economic analysis of preimplantation genetic testing for aneuploidy by polar body biopsy in advanced maternal age.

BJOG. 2020 May;127(6):710-718. doi: 10.1111/1471-0528.16089. Epub 2020 Feb 4.

Comment in
BJOG. 2020 May;127(6):719.

OBJECTIVE: What are the cost per live birth and the incremental cost of preventing a miscarriage with preimplantation genetic testing for aneuploidy (PGT-A) by polar body biopsy and array-based comprehensive genome hybridisation (aCGH) versus regular IVF/ICSI without PGT-A for infertility treatment in women 36-40 years of age? **DESIGN:** Decision tree model. **POPULATION:** A randomised clinical trial on PGT-A (ESTEEM study). **METHODS:** Two treatment strategies were compared: one cycle of IVF/ICSI with or without PGT-A. Costs and effects were analysed with this model for four different cost scenarios: high-, higher medium, lower medium and low-cost. Base case, sensitivity, threshold, and probabilistic sensitivity analyses were used to examine the cost-effectiveness implications of PGT-A. **RESULTS:** PGT-A increased the cost per live birth by approximately 15% in the high-cost scenario to approximately 285% in the low-cost scenario. Threshold analysis revealed that PGT-A would need to be associated with an absolute increase in pregnancy rate by 6% to >39% or, alternatively, would need to be US$2,969 (high-cost scenario) to US$4,888 (low-cost scenario) cheaper. The incremental cost to prevent one miscarriage by PGT-A using the base case assumptions was calculated to be US$34,427 (high-cost scenario) to US$51,146 (low-cost scenario). A probabilistic sensitivity analysis showed cost-effectiveness for PGT-A from 1.9% (high-cost scenario) to 0.0% (low-cost scenario) of calculated samples. **CONCLUSIONS:** While avoiding unnecessary embryo transfers and miscarriages are important goals, patients and doctors need to be aware of the high-cost implications of applying PGT-A using aCGH on polar bodies. **TWEETABLE ABSTRACT:** PGT-

A by polar body biopsy and comprehensive genome hybridisation increases cost per live birth and requires high financial spending per miscarriage averted.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.531 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology **Posición:** 7/83

Neves AR, Blockeel C, Griesinger G, Garcia-Velasco JA, Marca A, **Rodriguez I**, Drakopoulos P, **Alvarez M**, Tournaye H, **Polyzos NP**.
The performance of the Elecsys® anti-Müllerian hormone assay in predicting extremes of ovarian response to corifollitropin alfa.
Reprod Biomed Online. 2020 Jul;41(1):29-36. doi: 10.1016/j.rbmo.2020.03.023. Epub 2020 Apr 30.

RESEARCH QUESTION: What is the performance of anti-Müllerian hormone (AMH) as measured by the Elecsys® AMH assay in predicting ovarian response in women treated with 150 µg corifollitropin alfa (CFA)? **DESIGN:** Multicentre, prospective study conducted between December 2015 and April 2018. Women were aged 18-43 years, had regular menstrual bleeding, a body mass index of 17-35 kg/m2 and weighed 60 kg or over. **EXCLUSION CRITERIA:** previous oophorectomy, history of ovarian hyperstimulation syndrome, a previous IVF and intracytoplasmic sperm injection cycle producing over 30 follicles measuring 11 mm or wider, basal antral follicle count (AFC) over 20 or polycystic ovarian syndrome. All women were treated with 150 µg CFA followed by recombinant FSH (150-300 IU/day) in a fixed gonadotrophin releasing hormone antagonist protocol. **RESULTS:** Of the 219 patients enrolled, 22.8% had low ovarian response (three or fewer oocytes), 66.2% had normal response and 11% had high ovarian response (15 or more oocytes). The AMH and AFC presented an area under the curve of 0.883 (95% CI 0.830 to 0.936) and 0.879 (95% CI 0.826 to 0.930), respectively, for low ovarian response; and an AUC of 0.865 (95% CI 0.793 to 0.935) and 0.822 (95% CI 0.734 to 0.909) for high ovarian response. An AMH cut-off of 1.0 ng/ml provided a sensitivity of 92.0% and a specificity of 66.9% in the prediction of low ovarian response; a cut-off of 2.25 ng/ml predicted high ovarian response with a sensitivity of 54.2% and a specificity of 91.8%. **CONCLUSIONS:** The automated Elecsys® AMH assay predicts ovarian response in a CFA antagonist protocol. The best predictors of ovarian response in CFA-treated patients were AMH and AFC.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 3.828 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 17/83; Reproductive Biology 11/30 (Q2)

Pérez-López FR, Ornat L, Pérez-Roncero GR, López-Baena MT, **Sánchez-Prieto M**, Chedraui P.
The effect of endometriosis on sexual function as assessed with the Female Sexual Function Index: systematic review and meta-analysis.
Gynecol Endocrinol. 2020 Nov;36(11):1015-1023. doi: 10.1080/09513590.2020.1812570. Epub 2020 Sep 3.

AIM: To systematically compare sexual function between non-treated women with and without endometriosis. **METHODS:** A systematic review was performed on PubMed/Medline, Scopus, EMBASE, Web of Science and Cochrane Library databases searching studies that analyzed sexual function (assessed with the 19-item Female Sexual Function Index [FSFI]), and dyspareunia, chronic pelvic pain and dysmenorrhea (assessed with a visual analogue scale [VAS]) in women with and with endometriosis. **RESULTS:** In 4 studies, non-treated women with endometriosis presented a higher risk of female sexual dysfunction (mean total FSFI score ≤ 26.55; OR = 2.38; 95% confidence interval [CI] = 1.12, 5.04). Although mean total FSFI scores were not significantly different

between women with and without endometriosis (mean difference [MD] = -2.15; 95% CI -4.96, 0.67); all FSFI domain scores were significantly lower in women with endometriosis (n = 4 studies): desire (MD = -0.43; 95% CI -0.57, -0.19); arousal (MD = -0.66; 95% CI -1.15, -0.17); lubrication (MD = -0.41; 95% CI -0.79, -0.02); orgasm (MD = -0.40; 95% CI -0.73, -0.06); satisfaction (MD = -0.45; 95% CI -0.72, -0.18); and pain (MD = -1.03; 95% CI -1.34, -0.72). Women with endometriosis displayed differences (more severity) in terms of VAS scores (2 studies) for dyspareunia (MD = 1.88; 95% CI 0.38, 3.37) and chronic pelvic pain (MD = 2.92; 95% CI 1.26, 4.58); but not for dysmenorrhea. **CONCLUSION:** Non-treated women with endometriosis displayed altered sexual function as evidenced by lower scores in all FSFI domains, and severity of dyspareunia and chronic pelvic pain.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.260 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology;Endocrinology & Metabolism
Posición: Obstetrics & Gynecology 54/83; Endocrinology & Metabolism 127/146 (Q4)

Pérez-López FR, Tajada M, Savirón-Cornudella R, **Sánchez-Prieto M**, Chedraui P, Terán E.
Coronavirus disease 2019 and gender-related mortality in European countries: A meta-analysis.
Maturitas. 2020 Nov;141:59-62. doi: 10.1016/j.maturitas.2020.06.017. Epub 2020 Jun 23.

OBJECTIVE: To examine mortality rates related to coronavirus disease 2019 (COVID-19) by gender among European countries. **METHODS:** PubMed, preprint medRxiv and bioRxiv repositories, and Google were searched for the terms COVID-19, mortality rates, gender, and Europe. Only Google provided a website with appropriate information. COVID-19 cases and deaths from European countries were extracted by gender from the Global Health 50/50 repository up to May 23, 2020. Extracted data included country, the total number of COVID-19 cases and the number of related deaths by gender. Random effects models with the inverse variance method were used for meta-analyses. Results are reported as death risk ratios (RRs). **RESULTS:** We identified information from 23 European countries that reported separately by gender mortality rates related to COVID-19. The sample comprised 484,919 men and 605,229 women positive for COVID-19. The mortality rate was significantly higher in men than in women (risk ratio = 1.60, 95 % confidence interval [CI] 1.53, 1.68). The trend was similar when countries reporting < 5000, or < 10,000 cases were excluded from the analysis (RR = 1.60, 95 % CI 1.52, 1.69 and RR = 1.68; CI 1.62, 1.76, respectively). **CONCLUSION:** In Europe, the new zoonotic coronavirus causes significantly more deaths in men than in women.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.342 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Geriatrics & Gerontology
Posición: Obstetrics & Gynecology 12/83; Geriatrics & Gerontology 18/53 (Q2)

Polyzos NP, Popovic-Todorovic B.
SAY NO to mild ovarian stimulation for all poor responders: it is time to realize that not all poor responders are the same.
Hum Reprod. 2020 Sep 1;35(9):1964-1971. doi: 10.1093/humrep/deaa183.

Comment in
Hum Reprod. 2021 Mar 18;36(4):1157-1158.
Hum Reprod. 2021 Mar 18;36(4):1157.

Over the last 25 years, a vast body of literature has been published evaluating different treatment modalities for the management of poor ovarian responders. Despite the evidence that maximizing ovarian response can improve the chances of live born babies in poor responders, there are still voices suggesting that all poor responders are the same, irrespective of their age and their actual ovarian reserve. This has resulted in the

suggestion of adopting a mild ovarian stimulation approach for all poor responders, based on the results of several trials which failed to identity differences when comparing mild and more intense stimulation in predicted poor responders. The current article analyzes in detail these studies and discusses the shortcomings in terms of type of population included, outcomes and settings performed, which may actually be responsible for the belief that only mild stimulation should be used. In the era of individualization in medicine, it must be realized that there are subgroups of predicted poor responders who will benefit from an individual rather than 'one fits all' mild stimulation approach and thus we should provide the same standard of treatment for all our poor responder patients.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Polyzos NP, Anckaert E, Drakopoulos P, Tournaye H, Schiettecatte J, Donner H, Bobba G, Miles G, Verhagen-Kamerbeek WDJ, Bosch E.
EStradiol and PRogesterone in In vitro ferTilization (ESPRIT): a multicenter study evaluating third- versus second-generation estradiol and progesterone immunoassays.
J Endocrinol Invest. 2020 Sep;43(9):1239-1248. doi: 10.1007/s40618-020-01211-x. Epub 2020 Mar 13.

Erratum in
J Endocrinol Invest. 2020 Jun 3;:

PURPOSE: To assess estradiol (E2) and progesterone levels during ovarian stimulation determined by third-generation (Gen III) and second-generation (Gen II) Elecsys® immunoassays. **METHODS:** E2 and progesterone concentrations were measured using Elecsys® Gen III and Gen II immunoassays, and progesterone concentrations on the day of ovulation triggering were determined by LC-MS/MS. This was a retrospective, non-interventional study conducted at European tertiary referral infertility clinics in women aged 18-45 years, with a body mass index 18-35 kg/m2, regular menses, and both ovaries. **RESULTS:** Serum samples were obtained from 230 women classified by oocyte retrieval as poor (33.0%; 0-3 oocytes), normal (40.9%; 4-15 oocytes), or high (26.1%; > 15 oocytes) responders. E2 and progesterone levels increased during ovarian stimulation, with greatest increases observed in high responders. Elecsys® Gen III and Gen II assay results were highly correlated for E2 (Pearson's r = 0.99) and progesterone (r = 0.89); Gen III results were lower than Gen II for both E2 and progesterone. On the day of triggering, Gen III E2 and progesterone levels showed a difference of - 15.0% and - 27.9%, respectively. Progesterone levels (on day of triggering) measured by LC-MS/MS correlated better with Gen III (0.98) than Gen II (0.90). Mean relative differences for Gen III and Gen II assays versus LC-MS/MS were 14.6% and 62.8%, respectively. **CONCLUSION:** E2 and progesterone levels determined with Elecsys® Gen II and III assays were highly correlated; results were lower for Gen III versus Gen II. Differences observed for progesterone on the day of triggering may be clinically relevant.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.256 **Quartil:** 2 **Categoria:** Endocrinology & Metabolism **Posición:** 63/146

Polyzos NP, Anckaert E, Drakopoulos P, Tournaye H, Schiettecatte J, Donner H, Bobba G, Miles G, Verhagen-Kamerbeek WDJ, Bosch E.
Correction to: EStradiol and PRogesterone in In vitro ferTilization (ESPRIT): a multicenter study evaluating third- versus second-generation estradiol and progesterone immunoassays.
J Endocrinol Invest. 2020 Sep;43(9):1345. doi: 10.1007/s40618-020-01295-5.

Erratum for
J Endocrinol Invest. 2020 Sep;43(9):1239-1248.

The article "EStradiol and PRogesterone in In vitro ferTilization (ESPRIT): a multicenter study evaluating third- versus second-generation estradiol and progesterone immunoassays.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.256 **Quartil:** 2 **Categoria:** Endocrinology & Metabolism **Posición:** 63/146

Racca A, Drakopoulos P, Van Landuyt L, Willem C, Santos-Ribeiro S, Tournaye H, Blockeel C), **Polyzos NP**.
Single and double embryo transfer provide similar live birth rates in frozen cycles.
Gynecol Endocrinol. 2020 Sep;36(9):824-828. doi: 10.1080/09513590.2020.1712697. Epub 2020 Mar 3.

Research question: Do live birth rates (LBRs) differ in frozen cycles of women who received single versus double embryo transfer?Design: Retrospective cohort study including women who underwent their first frozen embryo transfer (FET) in a tertiary referral University Hospital between 2009-2014.Results: 3601 patients were included in the analysis with 1936 (53.8%) having a single embryo transfer (SET) and 1665 (46.2%) having a double embryo transfer (DET). Overall, 657/3601 (18.24%) had a live birth. LBR were similar between SET and DET either for cleavage [100/757 (13.1%) versus 153/1032 (14.8%), p = .33] or blastocyst stage FET [256/1179 (21.7%) versus 148/633 (23.4%), p = .4). Ongoing pregnancy rates were comparable between DET and SET [316/1665 (18.9%) versus 359/1936 (18.5%)]. Multiple delivery rates were significantly higher in women with DET compared to SET [53/316 (16.7%) versus 7/359 (1.9%), p < .001]. Multivariate logistic regression analysis allowing adjustment for relevant confounders showed that the number of embryos transferred in the frozen cycle was not related to LBR.Conclusions: This is the largest study providing evidence that both SET and DET may result in similar LBR, albeit multiple pregnancy rates are significantly lower in case of SET. Therefore, SET should be the main strategy in women undergoing FET.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 2.260 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology; Endocrinology & Metabolism
Posición: Obstetrics & Gynecology 54/83; Endocrinology & Metabolism 127/146 (Q4)

Salcedo FL, Blanco ZE.
Experience with ospemifene in patients with vulvovaginal atrophy treated with laser therapy: case studies.
Drugs Context. 2020 Jul 1;9:2020-3-7. doi: 10.7573/dic.2020-3-7. eCollection 2020.

Vaginal laser therapy is a non-hormonal treatment option for vulvovaginal atrophy (VVA), a component of the genitourinary syndrome of menopause. Through a microablative and/or thermal effect on atrophic vaginal epithelium, laser therapy activates growth factors that increase vascularity and collagen production. Laser and ospemifene are complementary treatments: the laser's effects on intra- and extracellular water are supported by the activity of ospemifene at estrogen receptors to restore vaginal epithelium and natural lubrication. This article reports the clinical course of two women with dyspareunia preventing sexual intercourse who were treated with ospemifene and laser therapy. The woman in case 1 had extreme vaginal stenosis and severe VVA symptoms. CO2 laser therapy accompanied by estriol vaginal gel and vaginal moisturizer was unsuccessful. After ospemifene and three sessions of laser therapy, followed by vaginal ring resection and continued

physiotherapy-directed mechanical dilation of the vagina, she was asymptomatic within 6 months. The woman in case 2 had severe VVA, which had prevented penetration for 2 years. Ospemifene was administered for 1 month to prepare the vaginal epithelium for photothermal therapy. A single erbium:YAG laser session and continued ospemifene treatment improved her symptoms sufficiently to allow her to resume sexual relations within 2 months.

Indexado en: PubMed

Sánchez-Borrego R, **Sánchez-Prieto M**.

What are the mechanisms of action of the different contraceptive methods to reduce the risk of ovarian cancer?

Eur J Contracept Reprod Health Care. 2021 Feb;26(1):79-84. doi: 10.1080/13625187.2020.1849617. Epub 2020 Nov 27.

OBJECTIVE: Ovarian cancer (OvCa) is the deadliest gynaecologic malignancy. Knowing that OvCa, as a disease, has different origins has allowed us to relate them to the mechanisms of action of different contraceptive methods with the aim of evaluating the possibility of their use in reducing risk. **STUDY DESIGN:** This commentary review article will instead focus on the recent findings on the role of contraceptive methods in preventing of OvCa. **RESULTS:** Combined hormonal contraceptive (CHC) use is an effective method of chemoprevention for OvCa in the general population and in women with genetic disorders. Salpingectomy, better than tubal ligation, should be offered for ovarian/tubal/peritoneal cancer prevention. Progestogen-only methods can decrease the risk of OvCa via reduced menstrual bleeding and by changes in the hormonal environment that surrounds the ovary. IUDs of any type, through different mechanisms, decrease the risk of OvCa. Barrier methods prevent the passage of germs into the tubes and ovaries and the inflammatory state they produce. **CONCLUSIONS:** Most contraceptive methods have a mechanism of action that may favour a reduction in the risk of OvCa. The theories of incessant ovulation, retrograde menstruation, and that the fallopian tubes are the site of origin of a proportion of high-grade serous OvCa, have led to the recommendation that anovulatory methods, those that decrease menstrual bleeding, and those that blocked tubes, or even better, 'opportunistic salpingectomy' are a current approach to prevent OvCa in the population general and, above all, in the population at risk.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.848 **Quartil:** 3 **Categoria:** Obstetrics & Gynecology; Public, Environmental & Occupational Health
Posición: Public, Environmental & Occupational Health 149/203; Obstetrics & Gynecology 67/83 (Q4)

Sanin-Ramirez D, Carriles I, **Graupera B**, Ajossa S, Neri M, **Rodriguez I**, **Pascual MÁ**, Guerriero S, Alcázar JL.

Two-dimensional transvaginal sonography vs saline contrast sonohysterography for diagnosing endometrial polyps: systematic review and meta-analysis.

Ultrasound Obstet Gynecol. 2020 Oct;56(4):506-515. doi: 10.1002/uog.22161. Epub 2020 Sep 14.

OBJECTIVE: To compare the diagnostic performance of two-dimensional transvaginal sonography (TVS) and saline contrast sonohysterography (SCSH) for the diagnosis of endometrial polyps in studies that used both tests in the same group of patients. **METHODS:** This was a systematic review and meta-analysis. An extensive search was conducted of Medline (PubMed), Cochrane Library and Web of Science, for studies comparing the diagnostic performance of TVS and SCSH for identifying endometrial polyps, published between January 1990 and December 2019, that reported a definition of endometrial polyp on TVS and SCSH and used pathologic analysis as the reference standard. Quality of the included studies was assessed using the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool. A random-effects model was used to determine pooled

sensitivity, specificity and positive and negative likelihood ratios of TVS and SCSH in the detection of endometrial polyps. Subanalysis according to menopausal status was performed. **RESULTS:** In total, 1278 citations were identified; after exclusions, 25 studies were included in the meta-analysis. In the included studies, the risk of bias evaluated using QUADAS-2 was low for most of the four domains, except for flow and timing, which had an unclear risk of bias in 13 studies. Pooled sensitivity, specificity and positive and negative likelihood ratios for TVS in the detection of endometrial polyps were 55.0% (95% CI, 46.0-64.0%), 91.0% (95% CI, 86.0-94.0%), 5.8 (95% CI, 3.9-8.7) and 0.5 (95% CI, 0.41-0.61), respectively. The corresponding values for SCSH were 92.0% (95% CI, 87.0-95.0%), 93.0% (95% CI, 91.0-95.0%), 13.9 (95% CI, 9.9-19.5) and 0.08 (95% CI, 0.05-0.14), respectively. Significant differences were found when comparing the methods in terms of sensitivity ($P < 0.001$), but not for specificity ($P = 0.0918$). Heterogeneity was high for TVS and moderate for SCSH. On subanalysis according to menopausal status, SCSH was found to have higher diagnostic accuracy in both pre- and postmenopausal women; sensitivity and specificity did not differ significantly between the groups for either TVS or SCSH. **CONCLUSION:** Given that SCSH has better diagnostic positive and negative likelihood ratios than does TVS in both pre- and postmenopausal women, those with clinical suspicion of endometrial polyps should undergo SCSH if TVS findings are inconclusive. © 2020 International Society of Ultrasound in Obstetrics and Gynecology.

Publisher: Ecografía transvaginal bidimensional vs histerosonografía con contraste salino para el diagnóstico de pólipos endometriales: revisión sistemática y metaanálisis OBJETIVO: Comparar el desempeño del diagnóstico de la ecografía transvaginal bidimensional (TVS, por sus siglas en inglés) y la histerosonografía con contraste salino (SCSH, por sus siglas en inglés) para el diagnóstico de pólipos endometriales en estudios que utilizaron ambas pruebas en el mismo grupo de pacientes. **MÉTODOS:** Este estudio fue una revisión sistemática y metaanálisis. El estudio realizó una extensa búsqueda en Medline (PubMed), Cochrane Library y Web of Science de estudios en los que se había comparado el desempeño del diagnóstico de la TVS y la SCSH para identificar pólipos endometriales, publicados entre enero de 1990 y diciembre de 2019, que incluyeran una definición de pólipo endometrial en la TVS y la SCSH y utilizaran el análisis patológico como estándar de referencia. La calidad de los estudios incluidos se evaluó mediante la herramienta de Evaluación de Calidad de los Estudios de Precisión en el Diagnóstico-2 (QUADAS-2, por sus siglas en inglés). Se utilizó un modelo de efectos aleatorios para determinar la sensibilidad combinada, la especificidad, los cocientes de verosimilitud positivos y negativos de la TVS y la SCSH en la detección de pólipos endometriales. Se realizó un subanálisis en función del estatus de la menopausia. **RESULTADOS:** Se identificaron un total de 1278 citas, de las cuales se incluyeron 25 estudios en el metaanálisis. En los estudios incluidos, el riesgo de sesgo evaluado mediante QUADAS-2 fue bajo para la mayoría de los cuatro dominios, excepto para el flujo y el tiempo, que tuvieron un riesgo de sesgo poco claro en 13 estudios. La sensibilidad combinada, la especificidad y los cocientes de verosimilitud positivos y negativos para la TVS en la detección de pólipos endometriales fueron del 55,0% (IC 95%, 46,0-64,0%), 91,0% (IC 95%, 86,0-94,0%), 5,8 (IC 95%, 3,9-8,7) y 0,5 (IC 95%, 0,41-0,61), respectivamente. Los valores correspondientes para la SCSH fueron 92,0% (IC 95%, 87,0-95,0%), 93,0% (IC 95%, 91,0-95,0%), 13,9 (IC 95%, 9,9-19,5) y 0,08 (IC 95%, 0,05-0,14), respectivamente. Se encontraron diferencias significativas al comparar los métodos respecto a la sensibilidad ($P<0,001$), pero no respecto a la especificidad ($P=0,0918$). La heterogeneidad fue alta para la TVS y moderada para la SCSH. En el subanálisis según el estado menopáusico, se determinó que la SCSH tenía una mayor precisión en el diagnóstico en las mujeres pre- y posmenopáusicas, mientras que la sensibilidad y la especificidad no difirieron significativamente entre ambos grupos, tanto para la TVS como para la SCSH. **CONCLUSIÓN:** Dado que la SCSH tiene mejores coeficientes de verosimilitud positivos y negativos de diagnóstico que la TVS en las mujeres pre- y posmenopáusicas, las mujeres con sospecha clínica de pólipos endometriales deberían someterse a una SCSH si los hallazgos de la TVS no son concluyentes.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Santos-Ribeiro S, Mackens S, Popovic-Todorovic B, Racca A, **Polyzos NP**, Van Landuyt L, Drakopoulos P, de Vos M, Tournaye H, Blockeel C.

The freeze-all strategy versus agonist triggering with low-dose hCG for luteal phase support in IVF/ICSI for high responders: a randomized controlled trial.

Hum Reprod. 2020 Dec 1;35(12):2808-2818. doi: 10.1093/humrep/deaa226.

Comment in
Hum Reprod. 2020 Dec 1;35(12):2660-2662.

STUDY QUESTION: Does the freeze-all strategy in high-responders increase pregnancy rates and improve safety outcomes when compared with GnRH agonist triggering followed by low-dose hCG intensified luteal support with a fresh embryo transfer? **SUMMARY ANSWER:** Pregnancy rates after either fresh embryo transfer with intensified luteal phase support using low-dose hCG or the freeze-all strategy did not vary significantly; however, moderate-to-severe ovarian hyperstimulation syndrome (OHSS) occurred more frequently in the women who attempted a fresh embryo transfer. **WHAT IS KNOWN ALREADY: Two** strategies following GnRH agonist triggering (the freeze-all approach and a fresh embryo transfer attempt using a low-dose of hCG for intensified luteal phase support) are safer alternatives when compared with conventional hCG triggering with similar pregnancy outcomes. However, these two strategies have never been compared head-to-head in an unrestricted predicted hyper-responder population. **STUDY DESIGN, SIZE, DURATION:** This study included women with an excessive response to ovarian stimulation (≥18 follicles measuring ≥11 mm) undergoing IVF/ICSI in a GnRH antagonist suppressed cycle between 2014 and 2017. Our primary outcome was clinical pregnancy at 7 weeks after the first embryo transfer. Secondary outcomes included live birth and the development of moderate-to-severe OHSS. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** Following GnRH agonist triggering, women were randomized either to cryopreserve all good-quality embryos followed by a frozen embryo transfer in an subsequent artificial cycle or to perform a fresh embryo transfer with intensified luteal phase support (1500 IU hCG on the day of oocyte retrieval, plus oral estradiol 2 mg two times a day, plus 200 mg of micronized vaginal progesterone three times a day). **MAIN RESULTS AND THE ROLE OF CHANCE:** A total of 212 patients (106 in each arm) were recruited in the study, with three patients (one in the fresh embryo transfer group and two in the freeze-all group) later withdrawing their consent to participate in the study. One patient in the freeze-all group became pregnant naturally (clinical pregnancy diagnosed 38 days after randomization) prior to the first frozen embryo transfer. The study arms did not vary significantly in terms of the number of oocytes retrieved and embryos produced/transferred. The intention to treat clinical pregnancy and live birth rates (with the latter excluding four cases lost to follow-up: one in the fresh transfer and three in the freeze-all arms, respectively) after the first embryo transfer did not vary significantly among the fresh embryo transfer and freeze-all study arms: 51/105 (48.6%) versus 57/104 (54.8%) and 41/104 (39.4%) versus 42/101 (41.6%), respectively (relative risk for clinical pregnancy 1.13, 95% CI 0.87-1.47; $P = 0.41$). However, moderate-to-severe OHSS occurred solely in the group that received low-dose hCG (9/105, 8.6%, 95% CI 3.2% to 13.9% vs 0/104, 95% CI 0 to 3.7, $P < 0.01$). **LIMITATIONS, REASONS FOR CAUTION:** The sample size calculation was based on a 19% absolute difference in terms of clinical pregnancy rates, therefore smaller differences, as observed in the trial, cannot be reliably excluded as non-significant. **WIDER IMPLICATIONS OF THE FINDINGS:** This study offers the first comparative analysis of two common strategies applied to women performing IVF/ICSI with a high risk to develop OHSS. While pregnancy rates did not vary significantly, a fresh embryo transfer with intensified luteal phase support may still not avoid the risk of moderate-to-severe OHSS and serious consideration should be made before recommending it as a routine first-line treatment. Future trials may allow us to confirm these findings. **STUDY FUNDING/COMPETING INTEREST(S):** The authors have no conflicts of interest to disclose. No

external funding was obtained for this study. **TRIAL REGISTRATION NUMBER:** ClinicalTrials.gov identifier NCT02148393.**TRIAL REGISTRATION DATE:** 28 May 2014. **DATE OF FIRST PATIENT'S ENROLMENT:** 30 May 2014.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Serra B, Mendoza M, **Scazzocchio E**, **Meler E**, Nolla M, Sabrià E, **Rodríguez I**, Carreras E.
A new model for screening for early-onset preeclampsia.
Am J Obstet Gynecol. 2020 Jun;222(6):608.e1-608.e18. doi: 10.1016/j.ajog.2020.01.020. Epub 2020 Jan 21.

BACKGROUND: Early identification of women with an increased risk for preeclampsia is of utmost importance to minimize adverse perinatal events. Models developed until now (mainly multiparametric algorithms) are thought to be overfitted to the derivation population, which may affect their reliability when applied to other populations. Options allowing adaptation to a variety of populations are needed. **OBJECTIVE:** The objective of the study was to assess the performance of a first-trimester multivariate Gaussian distribution model including maternal characteristics and biophysical/biochemical parameters for screening of early-onset preeclampsia (delivery <34 weeks of gestation) in a routine care low-risk setting. **STUDY DESIGN:** Early-onset preeclampsia screening was undertaken in a prospective cohort of singleton pregnancies undergoing routine first-trimester screening (8 weeks 0/7 days to 13 weeks 6/7 days of gestation), mainly using a 2-step scheme, at 2 hospitals from March 2014 to September 2017. A multivariate Gaussian distribution model including maternal characteristics (a priori risk), serum pregnancy-associated plasma protein-A and placental growth factor assessed at 8 weeks 0/7 days to 13 weeks 6/7 days and mean arterial pressure and uterine artery pulsatility index measured at 11.0-13.6 weeks was used. **RESULTS:** A total of 7908 pregnancies underwent examination, of which 6893 were included in the analysis. Incidence of global preeclampsia was 2.3% (n = 161), while of early-onset preeclampsia was 0.2% (n = 17). The combination of maternal characteristics, biophysical parameters, and placental growth factor showed the best detection rate, which was 59% for a 5% false-positive rate and 94% for a 10% false-positive rate (area under the curve, 0.96, 95% confidence interval, 0.94-0.98). The addition of placental growth factor to biophysical markers significantly improved the detection rate from 59% to 94%. **CONCLUSION:** The multivariate Gaussian distribution model including maternal factors, early placental growth factor determination (at 8 weeks 0/7 days to 13 weeks 6/7 days), and biophysical variables (mean arterial pressure and uterine artery pulsatility index) at 11 weeks 0/7 days to 13 weeks 6/7 days is a feasible tool for early-onset preeclampsia screening in the routine care setting. Performance of this model should be compared with predicting models based on regression analysis.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 8.661 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology **Posición:** 2/83

Sesmilo G, **Prats P**, **Garcia S**, **Rodríguez I**, **Rodríguez-Melcón A**, Berges I, **Serra B**.
First-trimester fasting glycemia as a predictor of gestational diabetes (GDM) and adverse pregnancy outcomes.
Acta Diabetol. 2020 Jun;57(6):697-703. doi: 10.1007/s00592-019-01474-8. Epub 2020 Jan 27.

AIMS: Studies to prevent gestational diabetes (GDM) have shown the best results when lifestyle measures have been applied early in pregnancy. We aimed to investigate whether first-trimester fasting plasma glucose (FPG) could predict GDM risk and adverse pregnancy outcomes. **METHODS:** A retrospective analysis of prospectively collected data from singleton pregnancies who were attended at our hospital between 2008 and 2018 (n = 27,198) was performed. We included patients with a recorded first-trimester FPG and complete pregnancy data (n = 6845). Patients under 18, with pregestational diabetes or reproductive techniques, were excluded. First-trimester FPG was evaluated as a continuous variable and divided into quartiles. GDM was diagnosed by NDDG criteria. The relationship between first- and second-trimester glucose > 92 mg/dL was also investigated. The relationship between FPG and pregnancy outcomes was assessed in 6150 patients who did not have GDM.
RESULTS: Maternal age was 34.2 ± 3.9 years, BMI 23.1 ± 3.7 kg/m2 and mean FPG 83.0 ± 7.3 mg/dL. Glucose quartiles were: ≤ 78, 79-83, 84-87 and ≥ 88 mg/dL. First-trimester FPG predicted the risk of GDM (7%, 8%, 10.2% and 16% in each quartile, $p < 0.001$) and the risk of second-trimester glucose > 92 mg/dL (2.6%, 3.8%, 6.3% and 11.4% in each quartile, $p < 0.001$). FPG was significantly associated with LGA (8.2%, 9.3%, 10% and 11.7% in each quartile, $p = 0.011$) but not with other obstetrical outcomes. In a multivariate analysis including age, BMI, tobacco use, number of pregnancies and weight gained during pregnancy, first-trimester FPG was an independent predictor of LGA. **CONCLUSIONS:** First-trimester FPG is an early marker of GDM and LGA.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.280 **Quartil:** 2 **Categoria:** Endocrinology & Metabolism **Posición:** 62/146

Stormlund S, Sopa N, Zedeler A, Bogstad J, Prætorius L, Nielsen HS, Kitlinski ML, Skouby SO, Mikkelsen AL, Spangmose AL, Jeppesen JV, Khatibi A, la Cour Freiesleben N, Ziebe S, **Polyzos NP**, Bergh C, Humaidan P, Andersen AN, Løssl K, Pinborg A.
Freeze-all versus fresh blastocyst transfer strategy during in vitro fertilisation in women with regular menstrual cycles: multicentre randomised controlled trial.
BMJ. 2020 Aug 5;370:m2519. doi: 10.1136/bmj.m2519.

OBJECTIVE: To compare the ongoing pregnancy rate between a freeze-all strategy and a fresh transfer strategy in assisted reproductive technology treatment. **DESIGN:** Multicentre, randomised controlled superiority trial.
SETTING: Outpatient fertility clinics at eight public hospitals in Denmark, Sweden, and Spain. **PARTICIPANTS:** 460 women aged 18-39 years with regular menstrual cycles starting their first, second, or third treatment cycle of in vitro fertilisation or intracytoplasmic sperm injection. **INTERVENTIONS:** Women were randomised at baseline on cycle day 2 or 3 to one of two treatment groups: the freeze-all group (elective freezing of all embryos) who received gonadotropin releasing hormone agonist triggering and single frozen-thawed blastocyst transfer in a subsequent modified natural cycle; or the fresh transfer group who received human chorionic gonadotropin triggering and single blastocyst transfer in the fresh cycle. Women in the fresh transfer group with more than 18 follicles larger than 11 mm on the day of triggering had elective freezing of all embryos and postponement of transfer as a safety measure. **MAIN OUTCOME MEASURES:** The primary outcome was the ongoing pregnancy rate defined as a detectable fetal heart beat after eight weeks of gestation. Secondary outcomes were live birth rate, positive human chorionic gonadotropin rate, time to pregnancy, and pregnancy related, obstetric, and neonatal complications. The primary analysis was performed according to the intention-to-treat principle. **RESULTS:** Ongoing pregnancy rate did not differ significantly between the freeze-all and fresh transfer groups (27.8% (62/223) v 29.6% (68/230); risk ratio 0.98, 95% confidence interval 0.87 to 1.10, P=0.76). Additionally, no significant difference was found in the live birth rate (27.4% (61/223) for the freeze-all group and 28.7% (66/230) for the fresh transfer group; risk ratio 0.98, 95% confidence interval 0.87 to 1.10, P=0.83). No significant differences between groups were observed for positive human chorionic gonadotropin rate or pregnancy loss, and none of the women had severe ovarian hyperstimulation syndrome; only one hospital admission related to this condition occurred in the fresh transfer group. The risks of pregnancy related, obstetric, and neonatal complications did not differ between the two groups except for a higher mean birth weight after frozen blastocyst transfer and an increased risk of prematurity after fresh blastocyst transfer. Time

to pregnancy was longer in the freeze-all group. **CONCLUSIONS:** In women with regular menstrual cycles, a freeze-all strategy with gonadotropin releasing hormone agonist triggering for final oocyte maturation did not result in higher ongoing pregnancy and live birth rates than a fresh transfer strategy. The findings warrant caution in the indiscriminate application of a freeze-all strategy when no apparent risk of ovarian hyperstimulation syndrome is present.**TRIAL REGISTRATION:** Clinicaltrials.gov NCT02746562.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 39.890 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 5/167

Vives A, Cosentino M, Palou J.
The role of human papilloma virus test in men: First exhaustive review of literature.
Actas Urol Esp (Engl Ed). 2020 Mar;44(2):86-93. doi: 10.1016/j.acuro.2019.08.010. Epub 2019 Dec 23.
[Article in English, Spanish]

Human papilloma virus (HPV) infection is the most common sexually transmitted infection worldwide. There is a high detection rate in sexually active young people but the risk, in males, persists over years. Currently, the American Center for Disease Control and Prevention does not recommend the evaluation of men for HPV and, the extant bibliography, backs up this stance for several reasons. Objective of the paper was to evaluate the usefulness of HPV detection methods for men; A comprehensive and exhaustive review of the literature was performed. Many are methods for HPV detection used in cervical cancer screening as well as in the study and management of patients with cytological alterations of the lower genital tract. Need for HPV detection methods in men are numerous: screening for both partner/gender; anogenital warts; recurrent respiratory papillomatosis; HPV-related cancer in men; fertility. No HPV test for men has been approved by the FDA, nor has any test been approved for detection of the virus in areas other than the cervix. Many are methods for HPV detection that have shown their usefulness in some of the pathologies associated with male HPV but, despite this, none of them has been approved for man.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 0.994 **Quartil:** 4 **Categoria:** Urology & Nephrology **Posición:** 80/89

Zapardiel I, Iacoponi S, Coronado PJ, Zalewski K, Chen F, Fotopoulou C, Dursun P, Kotsopoulos IC, Jach R, Buda A, Martinez-Serrano MJ, Grimm C, Fruscio R, Garcia E, Sznurkowski JJ, Ruiz C, Noya MC, Barazi D, Diez J, Diaz De la Noval B, Bartusevicius A, De Iaco P, Otero M, Diaz M, Haidopoulos D, Franco S, Blecharz P, Zuñiga MA, Rubio P, Gardella B, Papatheodorou DC, Yildirim Y, **Fargas F**, Macuks R; VULCAN Study coinvestigators.
Prognostic factors in patients with vulvar cancer: the VULCAN study.
Int J Gynecol Cancer. 2020 Sep;30(9):1285-1291. doi: 10.1136/ijgc-2019-000526. Epub 2020 Jun 22.

Erratum in
Int J Gynecol Cancer. 2020 Dec;30(12):2023.

Comment in
Int J Gynecol Cancer. 2021 Jan;31(1):158.
Int J Gynecol Cancer. 2021 Jan;31(1):157.

OBJECTIVE: This study aimed to analyze the prognostic factors for overall and progression-free survival in patients with vulvar cancer. **METHODS:** This international, multicenter, retrospective study included 2453 patients diagnosed with vulvar cancer at 100 different institutions. Inclusion criteria were institutional review board approval from each collaborating center, pathologic diagnosis of invasive carcinoma of the vulva, and primary treatment performed at the participating center. Patients with intraepithelial neoplasia or primary treatment at non-participating centers were excluded. Global survival analysis and squamous cell histology subanalysis was performed. **RESULTS:** After excluding patients due to incomplete data entry, 1727 patients treated for vulvar cancer between January 2001 and December 2005 were registered for analysis (1535 squamous, 42 melanomas, 38 Paget's disease and 112 other histologic types). Melanomas had the worse prognosis (p=0.02). In squamous vulvar tumors, independent factors for increase in local recurrence of vulvar cancer were: no prior radiotherapy (p<0.001) or chemotherapy (p=0.006), and for distant recurrence were the number of positive inguinal nodes (p=0.025), and not having undergone lymphadenectomy (p=0.03) or radiotherapy (p<0.001), with a HR of 1.1 (95% CI 1.2 to 1.21), 2.9 (95% CI 1.4 to 6.1), and 3.1 (95% CI 1.7 to 5.7), respectively. Number of positive nodes (p=0.008), FIGO stage (p<0.001), adjuvant chemotherapy (p=0.001), tumor resection margins (p=0.045), and stromal invasion >5 mm (p=0.001) were correlated with poor overall survival, and large case volume (≥9 vs <9 cases per year) correlated with more favorable overall survival (p=0.05). **CONCLUSIONS:** Advanced patient age, number of positive inguinal lymph nodes, and lack of adjuvant treatment are significantly associated with a higher risk of relapse in patients with squamous cell vulvar cancer. Case volume per treating institution, FIGO stage, and stromal invasion appear to impact overall survival significantly. Future prospective trials are warranted to establish these prognostic factors for vulvar cancer.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 3.437 **Quartil:** 2 **Categoria:** Obstetrics & Gynecology; Oncology
Posición: Obstetrics & Gynecology 23/83; Oncology 158/242

PEDIATRIA DEXEUS – PAIDO SALUT INFANTIL

Nº Articulos indexados: 2 **Factor de Impacto total:** 2.821 **Factor impacto medio x artículo:** 1.411

Porta R, **Serrano P**, **Paltrinieri A**, **Ristic G**, Canals C, **Lozano M**.
Neonatal alloimmune thrombocytopenia due to anti-HPA 5a in a HPA-5a homozygous neonate.
Transfus Apher Sci. 2020 Dec;59(6):102880. doi: 10.1016/j.transci.2020.102880. Epub 2020 Jul 22.

The most frequently involved antigen in severe fetal and neonatal alloimmune thrombocytopenia (FNAIT) is the human platelet antigen 1a. Cases of FNAIT caused by HPA-5a antigen are extremely rare, and usually not severe. We report a case of FNAIT caused by anti-HPA antibodies directed to the HPA-5a antigen. The thrombocytopenia was moderate with a minimal platelet count of 36 × 109/L by day 3, and spontaneously resolved by day 10. The pregnancy had been obtained by in vitro fertilization using embryo donation, creating a complete genetic disparity between the HPA 5b5b mother and the HPA 5a5a homozygous neonate. The use of ART with gamete donation can increase the risk and the severity of alloimmune thrombocytopenia and must be considered in new and subsequent pregnancies.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.764 **Quartil:** 4 **Categoria:** Hematology **Posición:** 68/76

Román E, Moreno Villares JM, Domínguez Ortega F, Carmona Martínez A, Picó Sirvent L, **Santana Sandoval L**, Casas Rivero J, Alshweki A, Cercamondi C, Dahbane S, Vidal Guevara ML.
Real-world study in infants fed with an infant formula with two human milk oligosaccharides.
Nutr Hosp. 2020 Aug 27;37(4):698-706. doi: 10.20960/nh.03084. [Article in English]

Introduction: human milk oligosaccharides (HMOs) are an important component of human milk supporting the development of a balanced intestinal microbiota and immune protection in breastfed infants. Randomized controlled trials (RCTs) have demonstrated that infant formulas supplemented with the HMOs 2'-fucosyllactose (2'FL) and lacto-N-neotetraose (LNnT) are safe, well-tolerated, and support normal growth. This Real-World Evidence (RWE) study aimed to evaluate growth and tolerance in infants consuming a formula supplemented with 1 g/L of 2'FL and 0.5 g/L of LNnT, and included a mixed-feeding group never studied before in RCTs. **Participants and methods:** this open-label, prospective study was conducted at six centers in Spain, and included healthy, exclusively breastfed infants (BF group), an exclusively formula-fed group (FF) who received a milk-based formula with 2' FL and LNnT, and a group mixed fed with both formula and human milk (MF), for 8 weeks. Co-primary outcomes were growth (anthropometry) and gastrointestinal tolerance (Infant Gastrointestinal Symptom Questionnaire, IGSQ). Secondary outcomes included formula satisfaction and adverse events (AEs). **Results:** 159 infants completed the study (66 FF, 48 MF, and 45 BF). Mean z-scores for growth were similar between all groups and within ± 0.5 of WHO medians at week 8. Composite IGSQ scores demonstrated low GI distress in all groups, with no significant group differences at baseline, week 4, or week 8. Incidence of AEs was low overall, and comparable across groups. **Conclusions:** in this RWE study examining a HMO-supplemented infant formula, growth and tolerance outcomes were similar to RCT findings, supporting the effectiveness of this early feeding option.

Publisher: Introducción: los oligosacáridos de la leche materna (HMO) contribuyen a desarrollar la inmunoprotección y la microbiota intestinal. Los ensayos aleatorizados (RCT) han demostrado que las fórmulas enriquecidas con 2'fucosilactosa (2'FL) y lacto-N-neotetraosa (LNnT) son seguras, bien toleradas y favorecen el crecimiento. El objetivo de este estudio ha sido valorar el crecimiento, la seguridad y la tolerancia digestiva en lactantes alimentados con una fórmula enriquecida con 1 g/L de 2'FL y 0,5 g/L de LNnT, con datos de la vida real

(RWE), incluyendo un grupo de alimentación mixta no estudiado antes en los RCT. Participantes y métodos: estudio prospectivo abierto en seis hospitales españoles que incluyó lactantes sanos alimentados con leche materna (BF), con fórmula enriquecida en 2'FL y LNnT (FF) o con mezcla de ambas (MF), durante ocho semanas. Se valoraron el crecimiento (antropometría), la tolerancia gastrointestinal (cuestionario IGSQ) y los acontecimientos adversos. Resultados: 159 lactantes completaron el estudio (66, 48 y 45, en los grupos FF, MF y BF, respectivamente). Las puntuaciones Z antropométricas a la semana 8 fueron similares entre los grupos y se hallaron dentro del rango de ± 0,5 de la normalidad. Las puntuaciones IGSQ compuestas mostraron un bajo malestar digestivo, sin diferencias significativas entre los grupos, al inicio y en las semanas 4 y 8. La incidencia de eventos adversos fue baja y comparable entre los grupos. Conclusiones: en este estudio RWE que evaluó una fórmula para lactantes enriquecida en HMO, los resultados sobre el crecimiento, la tolerancia y la seguridad fueron similares a los obtenidos en los RCT, respaldando su eficacia como alimentación temprana opcional.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 1.057 **Quartil:** 4 **Categoria:** Nutrition & Dietetics **Posición:** 77/88

PSIQUIATRIA Y PSICOLOGIA – PSICODEX SL

Nº Articulos indexados: 4 **Factor de Impacto total:** 9.574 **Factor impacto medio x artículo:** 2.394

Anastasiadou D, Folkvord F, Brugnera A, Cañas Vinader L, SerranoTroncoso E, Carretero Jardí C, Linares Bertolin R, Muñoz Rodríguez R, Martínez Nuñez B, Graell Berna M, Torralbas-Ortega J, Torrent-Solà L, Puntí-Vidal J, Carrera Ferrer M, Muñoz Domenjó A, Diaz Marsa M, **Gunnard K**, Cusido J, Arcal Cunillera J, Lupiañez-Villanueva F.

An mHealth intervention for the treatment of patients with an eating disorder: A multicenter randomized controlled trial.

Int J Eat Disord. 2020 Jul;53(7):1120-1131. doi: 10.1002/eat.23286. Epub 2020 May 8.

OBJECTIVE: The current multicentre randomized controlled trial assessed the clinical efficacy of a combined mHealth intervention for eating disorders (EDs) based on cognitive behavioral therapy (CBT). **METHOD:** A total of 106 ED patients from eight different public and private mental health services in Spain were randomly assigned to two parallel groups. Patients of the experimental group (N = 53) received standard face-to-face CBT plus a mobile intervention through an application called "TCApp," which provides self-monitoring and an online chat with the therapist. The control group (N = 53) received standard face-to-face CBT only. Patients completed self-report questionnaires on ED symptomatology, anxiety, depression, and quality of life, before and after treatment. **RESULTS:** Significant reductions in primary and secondary outcomes were observed for participants of both groups, with no differences between groups. Results also suggested that the frequency with which patients attended their referral mental health institution after the intervention was lower for patients in the experimental group than for those in the control group. **DISCUSSION:** The current study showed that CBT can help to reduce symptoms relating to ED, regardless of whether its delivery includes online components in addition to traditional face-to-face treatment. Besides, the additional component offered by the TCApp does not appear to be promising from a purely therapeutic perspective but perhaps as a cost-effective tool, reducing thus the costs and time burden associated with weekly visits to health professionals.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.861 **Quartil:** 1 **Categoria:** Psychology; Psychiatry; Nutrition & Dietetics
Posición: Psychology 9/77; Psychiatry 39/156; Nutrition & Dietetics 27/88 (Q2)

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SSCI)
Factor Impacto: 4.861 **Quartil:** 1 **Categoria:** Psychology; Psychiatry
Posición: Psychology 24/144; Psychiatry 21/130

Cabello F, Sánchez F, **Farré JM**, Montejo AL.

Consensus on Recommendations for Safe Sexual Activity during the COVID-19 Coronavirus Pandemic.

J Clin Med. 2020 Jul 20;9(7):2297. doi: 10.3390/jcm9072297.

Sexual activity offers numerous advantages for physical and mental health but maintains inherent risks in a pandemic situation, such as the current one caused by SARS-CoV-2. A group of experts from the Spanish Association of Sexuality and Mental Health (AESexSAME) has reached a consensus on recommendations to maintain lower-risk sexual activity, depending on one's clinical and partner situations, based on the current knowledge of SARS-CoV-2. Different situations are included in the recommendations: a sexual partner passing quarantine without any symptoms, a sexual partner that has not passed quarantine, a sexual partner with some suspicious symptoms of COVID-19, a positive sexual partner with COVID-19, a pregnant sexual partner, a health professional partner in contact with COVID-19 patients, and people without a sexual partner. The main recommendations include returning to engaging in safe sex after quarantine is over (28 days based on the

duration one can carry SARS-CoV-2, or 33 days for those who are >60 years old) and all parties are asymptomatic. In all other cases (for those under quarantine, those with some clinical symptoms, health professionals in contact with COVID-19 patients, and during pregnancy), abstaining from coital/oral/anal sex, substituting it with masturbatory or virtual sexual activity to provide maximum protection from the contagion, and increasing the benefits inherent to sexual activity are recommended. For persons without a partner, not initiating sexual activity with a sporadic partner is strongly recommended.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.242 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 39/167

Lasheras G, **Mestre-Bach G**, Clua E, Rodríguez I, **Farré-Sender B**.
Cross-Border Reproductive Care: Psychological Distress in A Sample of Women Undergoing In Vitro Fertilization Treatment with and without Oocyte Donation.
Int J Fertil Steril. 2020 Jul;14(2):129-135. doi: 10.22074/ijfs.2020.5997. Epub 2020 Jul 15.

BACKGROUND: Cross-border reproductive care (CBRC) refers to the movement of patients to foreign countries for fertility treatment. Limited evidence indicates that this phenomenon is associated with a risk of psychological distress, but few studies on the psychological impact of CBRC are currently available. The aim of this study was to compare the anxiety and depression levels of a group of cross-border patients with a local Spanish patient group, both of which underwent in vitro fertilization (IVF) treatment. We also sought to explore the clinical, sociodemographic and personality profiles of the CBRC group and local women. **MATERIALS AND METHODS:** This present cross-sectional study was conducted on 161 infertile females (71 CBRC patients and 90 local women) who were undergoing IVF treatment. The following questionnaires were used to collect data: Spielberger State Anxiety Inventory (STAI-S), the Beck Depression Inventory-II (BDI-II) and the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ). Sociodemographic, clinical, reproductive and CBRC variables were also recorded. **RESULTS:** CBRC patients, specifically CBRC oocyte recipients, showed higher levels of anxiety compared to local women. However, no significant differences in depression scores were found between both groups. Finally, when analysing personality, the Activity scale scores of the ZKPQ were found to be higher in CBRC oocyte recipients, which indicated a greater tendency for general activity and higher energy levels. **CONCLUSION:** CBRC oocyte recipient women may have greater vulnerability to anxiety than local women prior to infertility treatment. Screening and psychological support protocols for anxiety in this population should be considered.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 0.471 **Quartil:** 4 **Categoria:** Obstetrics & Gynecology **Posición:** 74/78

Farré JM, Montejo AL, **Agulló M**, Granero R, Chiclana Actis C, Villena A, Maideu E, Sánchez M, Fernández-Aranda F, Jiménez-Murcia S, **Mestre-Bach G**.
Pornography Use in Adolescents and Its Clinical Implications.
J Clin Med. 2020 Nov 11;9(11):3625. doi: 10.3390/jcm9113625.

(1) Background: The Differential Susceptibility to Media Effects Model (DSMM) suggests that pornography use effects are conditional and they depend on dispositional, developmental, and social differential susceptibility variables. This framework also highlights that the differential susceptibility variables act as predictors of pornography use and as moderators of the effect of pornography on criterion variables. **(2) Methods:** By administering a survey to n = 1500 adolescents, we tested whether these assumptions were met. **(3) Results:** Pornography use was related to being male and older, having a bisexual or undefined sexual orientation, higher substance use, being non-Muslim, and reporting sexual interest and the use of the media to obtain sexual

information. Structural Equation Modeling (SEM) showed that higher levels in the criterion variables were directly related to pornography use, older age, substance use, and being women. Some mediational links also emerged. Pornography use mediated between the age and criterion variables. Moreover, substance use mediated the association between age and gender with the criterion variables. **(4) Conclusions:** Our findings support the clinical applicability of the theoretical DSMM framework. Knowing adolescent pornography consumers' profiles and the impact of pornography on this population would allow for the designing of more effective prevention and regulation proposals.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.242 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 39/167

REUMATOLOGIA

Nº Articulos indexados: 2 **Factor de Impacto total:** 19.103 **Factor impacto medio x artículo:** 9.552

Gomez-Centeno A, **Ramentol M**, **Gonzalez MJ**, **Alegre C.**
Coenzyme Q10, tryptophan and magnesium: a nutritional supplement in the treatment of fibromyalgia symptoms.
Ann Rheum Dis, 2020, 79(SUPPL 1), 1773-1774. doi: 10.1136/annrheumdis-2020-eular.5531

Background: Fibromyalgia syndrome (FMS) is a multidimensional chronic disorder characterized by widespread musculoskeletal pain, fatigue, sleep disturbances, cognitive dysfunction, depressive episodes, and anxiety [1]. Management of FMS remains challenging and treatment strategies are required to be multidisciplinary. Among nonpharmacological therapies, nutrition is a promising tool, since oxidative stress and/or an imbalance of nutritional components have demonstrated to play a critical role in the pathophysiology of FMS [2,3]. **Objectives:** We conducted a pilot study (FATMIA Study) to investigate the efficacy and tolerability of a dietary supplementation (NSC) containing coenzyme Q10, magnesium and tryptophan in FMS patients. **Methods:** This was a prospective, double-blind, placebo-controlled, two-period pilot study conducted between March 2017-October 2017. All patients underwent two 3-month treatments with NSC and placebo, with a 1-month washout period in between. To evaluate the most prevalent clinical manifestations of FMS, the Combined Index of Severity of Fibromyalgia questionnaire (ICAF) [4] was used. A sample of 23 patients aged from 18 to 80 years, with a formal diagnosis of fibromyalgia of at least two years, was included in the study. **Results:** Twenty patients completed the study, while three (13.0%) dropped out because they failed to attend all clinical visits (n=2) or presented an adverse event (n=1). Participant demographics are presented in Table 1. All participants were female with a mean age of 51.9 (7.2) years. Depression and anxiety were reported in 65.0% (13/20) and 30.0% (6/20) of cases, respectively. All patients were under pharmacological treatment for FMS symptoms. The most commonly reported medications were paracetamol (60.0%, 12/20), selective serotonin reuptake inhibitors(45.0%, 9/20), and tramadol (40.0%, 8/20). Physical symptoms such as fatigue, functional capacity, pain and sleep quality improved at the end of the study treatment, whereas they mainly declined after placebo treatment. However, no statistically significant differences were found among the studied variables. Total ICAF score improved after NSC treatment, and declined after placebo treatment. NSC treatment was well tolerated, with a low incidence of adverse events (5.0%, 1/20). **Conclusion:** The results of this study constitute the first investigation of the effect of a nutritional supplement containing CoQ10, magnesium and tryptophan on FMS. Although the results should be confirmed in larger studies, they suggest that NSC treatment for 3 months, in addition to pharmacological therapy, may be of interest in the management of FMS. This treatment appeared to primarily improve physical symptoms, such as fatigue and pain, with low risk of adverse events.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 19.103 **Quartil:** 1 **Categoria:** Rheumatology **Posición:** 2/34

Yoldi Muñoz B, Martín Martínez MA, Valero Expósito M, Plana Veret C, Andreu Sánchez JL, Moreno Muelas JV.
Hierarchical nomenclature in rheumatology.
Reumatol Clin (Engl Ed). 2020 Jan-Feb;16(1):3-10. doi: 10.1016/j.reuma.2018.11.010. Epub 2019 Feb 8.
[Article in English, Spanish]

INTRODUCTION: One of the missions of the Spanish Society of Rheumatology is to provide the necessary tools for excellence in health care. Currently, there is no reference point to quantify medical actions in this specialty, and this is imperative. **MATERIAL AND METHOD:** A list of actions was drawn up and a hierarchical classification system was established by developing a complexity index, calculated based on the completion time and difficulty level of each action. **RESULTS:** The results of the Delphi method tended to the consensus opinion within a group (mean σ2 - σ1=0.75-1.43=-0.68, mean IQR2 - IQR1=0.8-1.9=-1.1). The values of the complexity

index ranged between 48 and 465 points. Among consultation actions, those reaching the highest scores were the first inpatient visit (366) and visits to the patient's home (369). Among diagnostic techniques, biopsies were prominent, those with the highest score were: bone biopsy (465), sural nerve biopsy (416) and synovial biopsy (380). Ultrasound scan scored 204, capillaroscopy 113 and densitometry 112. Among therapeutic techniques, infiltration/ arthrocentesis/articular injection in children reached the highest difficulty (388). The score for ultrasound-guided articular injection was 163. The score for clinical report on disability was 323 and expert report 370. **CONCLUSIONS:** A nomenclature of 54 actions in Rheumatology was compiled. Biopsies (bone, sural nerve, synovial), inpatient visits, visits to the patient's home, infiltrations in children, and the preparation of the expert report were identified as the most complex actions. Musculoskeletal ultrasound is twice as complex as subsequent visits, capillaroscopy or bone densitometry.

Indexado en: PubMed

Artículos destacados en 1er Decil

DIGESTIVO

Lopez-Nava G, Asokkumar R, Bautista-Castaño I, Laster J, Negi A, Fook-Chong S, Nebreda Duran J, **Espinett Coll E**, Gebelli JP, Garcia Ruiz de Gordejuela A.
Endoscopic sleeve gastroplasty, laparoscopic sleeve gastrectomy, and laparoscopic greater curve plication: do they differ at 2 years?
Endoscopy. 2021 Mar;53(3):235-243. doi: 10.1055/a-1224-7231. Epub 2020 Jul 22.

Comment in
Endoscopy. 2021 Mar;53(3):244-245.
Endoscopy. 2021 Mar;53(3):v12.
Endoscopy. 2021 Mar;53(3):339.
Endoscopy. 2021 Mar;53(3):340.

Endoscopic sleeve gastroplasty (ESG) is an effective treatment option for obesity. However, data comparing its efficacy to bariatric surgery are scarce. We aimed to compare the effectiveness and safety of ESG with laparoscopic sleeve gastrectomy (LSG) and laparoscopic greater curve plication (LGCP) at 2 years. **METHODS :** We reviewed 353 patient records and identified 296 patients who underwent ESG (n = 199), LSG (n = 61), and LGCP (n = 36) at four centers in Spain between 2014 and 2016. We compared their total body weight loss (%TBWL) and safety over 2 years. A linear mixed model (LMM) was used to analyze repeated measures of weight loss outcomes at 6, 12, 18, and 24 months to compare the three procedures. **RESULTS :** Among the 296 patients, 210 (ESG 135, LSG 43, LGCP 32) completed 1 year of follow-up and 102 (ESG 46, LSG 34, LGCP 22) reached 2 years. Their mean (standard deviation [SD]) body mass index (BMI) was 39.6 (4.8) kg/m2. There were no differences in age, sex, or BMI between the groups. In LMM analysis, adjusting for age, sex, and initial BMI, we found ESG had a significantly lower TBWL, %TBWL, and BMI decline compared with LSG and LGCP at all time points (P = 0.001). The adjusted mean %TBWL at 2 years for ESG, LSG, and LGCP were 18.5 %, 28.3 %, and 26.9 %, respectively. However, ESG, when compared with LSG and LGCP, had a shorter inpatient stay (1 vs. 3 vs. 3 days; P < 0.001) and lower complication rate (0.5 % vs. 4.9 % vs. 8.3 %; P = 0.006). **CONCLUSION :** All three procedures induced significant weight loss in obese patients. Although the weight loss was lower with ESG compared with other techniques, it displayed a better safety profile and shorter hospital stay.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 10.093 **Quartil:** 1 **Categoria:** Gastroenterology & Hepatology; Surgery
Posición: Gastroenterology & Hepatology 11/92; Surgery 5/211

ICATME – INSTITUT CATALÀ DE TRAUMATOLOGIA i MEDICINA DE L'ESPORT

Masferrer-Pino A, Saenz-Navarro I, Rojas G, **Perelli S**, **Erquicia J**, **Gelber PE**, **Monllau JC**.
The Menisco-Tibio-Popliteus-Fibular Complex: Anatomic Description of the Structures That Could Avoid Lateral Meniscal Extrusion.
Arthroscopy. 2020 Jul;36(7):1917-1925. doi: 10.1016/j.arthro.2020.03.010. Epub 2020 Mar 19.

Comment in
Arthroscopy. 2020 Jul;36(7):1926-1927.

PURPOSE: To analyze, quantify, and redefine the anatomy of the peripheral attachments of the lateral meniscal body to further understand how the structures might play a part in preventing meniscal extrusion and how it might be applied to surgical techniques. **METHODS:** Ten nonpaired fresh-frozen cadaveric knees without prior injury, a surgical history, or gross anatomic abnormality were included. There were 5 right and 5 left knees, and 50% were from male donors and 50% were from female donors. All the dissections were performed by a group of 3 experts in knee surgery (2 knee surgeons and 1 anatomy professor who oversaw the design of the dissection protocol and guided this protocol). The main peripheral structures associated with the lateral meniscus body were dissected to determine the insertion, size, thickness, and location of the lateral meniscotibial ligament (LMTL), popliteofibular ligament (PFL), and popliteomeniscal ligament (PML). The distance to various landmarks in the lateral compartment was also determined using an electronic caliper. Moreover, a histopathologic study was carried out. **RESULTS:** The average thickness of the LMTL was 0.62 ± 0.18 mm (95% confidence interval [CI], 0.49-0.75 mm); that of the PFL-PML area was 1.05 ± 0.27 mm (95% CI, 0.85-1.24 mm). The anteroposterior distance measured 15.80 ± 4.80 mm (95% CI, 12.40-19.30 mm) for the LMTL and 10.40 ± 1.70 mm (95% CI, 9.21-11.63 mm) for the PFL-PML area. The anteroposterior distance of the whole menisco-tibio-popliteus-fibular complex (MTPFC) was 28.20 ± 4.95 mm (95% CI, 24.70-31.70 mm). The average distance from the MTPFC to the posterior horn of the lateral meniscal root was 29.30 ± 2.29 mm (95% CI, 27.60-30.90 mm), whereas that to the anterior horn was 32.00 ± 4.80 mm (95% CI, 28.60-35.50 mm). The average distance from the tibial insertion of the LMTL to the articular surface was 5.59 ± 1.22 mm (95% CI, 4.72-6.46 mm). In all the anatomic components of the knee, a consistent morphologic and histologic pattern was observed between the fibers of the LMTL, PFL, and PML and those of the lateral meniscal body, making up the proposed MTPFC. **CONCLUSIONS:** A consistent anatomic pattern has been identified between the lateral meniscal body and the LMTL, PFL, and PML, forming an interconnected complex that would seem appropriate to denominate the MTPFC. A precise study of this region and appropriate nomenclature for it could contribute to a better understanding of the mechanism of lateral meniscal injuries at this level, as well as the development of surgical techniques to treat these lesions and prevent extrusion. **CLINICAL RELEVANCE:** This study contributes to the understanding of the lateral meniscal body attachments and the functions they serve. This will lead to improvements in the treatment of lesions in this region, including the development of surgical techniques.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.772 **Quartil:**1 **Categoria:** Orthopedics; Sports Sciences; Surgery
Posición: Orthopedics 8/82; Sports Sciences 12/88; Surgery 27/211

Savarirayan R, Tofts L, Irving M, Wilcox W, Bacino CA, Hoover-Fong J, Ullot Font R, Harmatz P, Rutsch F, Bober MB, Polgreen LE, **Ginebreda I**, Mohnike K, Charrow J, Hoernschemeyer D, Ozono K, Alanay Y, Arundel P, Kagami S, Yasui N, White KK, Saal HM, Leiva-Gea A, Luna-González F, Mochizuki H, Basel D, Porco DM, Jayaram K, Fisheleva E, Huntsman-Labed A, Day J.
Once-daily, subcutaneous vosoritide therapy in children with achondroplasia: a randomised, double-blind, phase 3, placebo-controlled, multicentre trial.
Lancet. 2020 Sep 5;396(10252):684-692. doi: 10.1016/S0140-6736(20)31541-5.

Erratum in
Lancet. 2020 Oct 10;396(10257):1070.

BACKGROUND: There are no effective therapies for achondroplasia. An open-label study suggested that vosoritide administration might increase growth velocity in children with achondroplasia. This phase 3 trial was

designed to further assess these preliminary findings. **METHODS:** This randomised, double-blind, phase 3, placebo-controlled, multicentre trial compared once-daily subcutaneous administration of vosoritide with placebo in children with achondroplasia. The trial was done in hospitals at 24 sites in seven countries (Australia, Germany, Japan, Spain, Turkey, the USA, and the UK). Eligible patients had a clinical diagnosis of achondroplasia, were ambulatory, had participated for 6 months in a baseline growth study and were aged 5 to less than 18 years at enrolment. Randomisation was done by means of a voice or web-response system, stratified according to sex and Tanner stage. Participants, investigators, and trial sponsor were masked to group assignment. Participants received either vosoritide 15·0 μg/kg or placebo, as allocated, for the duration of the 52-week treatment period administered by daily subcutaneous injections in their homes by trained caregivers. The primary endpoint was change from baseline in mean annualised growth velocity at 52 weeks in treated patients as compared with controls. All randomly assigned patients were included in the efficacy analyses (n=121). All patients who received one dose of vosoritide or placebo (n=121) were included in the safety analyses. The trial is complete and is registered, with EudraCT, number, 2015-003836-11. **FINDINGS:** All participants were recruited from Dec 12, 2016, to Nov 7, 2018, with 60 assigned to receive vosoritide and 61 to receive placebo. Of 124 patients screened for eligibility, 121 patients were randomly assigned, and 119 patients completed the 52-week trial. The adjusted mean difference in annualised growth velocity between patients in the vosoritide group and placebo group was 1·57 cm/year in favour of vosoritide (95% CI [1·22-1·93]; two-sided p<0·0001). A total of 119 patients had at least one adverse event; vosoritide group, 59 (98%), and placebo group, 60 (98%). None of the serious adverse events were considered to be treatment related and no deaths occurred. **INTERPRETATION:** Vosoritide is an effective treatment to increase growth in children with achondroplasia. It is not known whether final adult height will be increased, or what the harms of long-term therapy might be.
FUNDING: BioMarin Pharmaceutical.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 79.323 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 2/167

INSTITUTO ONCOLÓGICO DR. ROSELL – DEXEUS

Gonzalez-Cao M, Martinez-Picado J, **Rosell R**.
Safety of Anti-PD-L1 Inhibition in HIV-1-Infected Patients With Cancer-Reply.
JAMA Oncol. 2020 Nov 1;6(11):1810-1811. doi: 10.1001/jamaoncol.2020.3400.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 31.777 **Quartil:** 1 **Categoria:** Oncology **Posición:** 8/242

Gonzalez-Cao M, Morán T, Dalmau J, Garcia-Corbacho J, **Bracht JWP**, Bernabe R, Juan O, de Castro J, Blanco R, **Drozdowskyj A**, Argilaguet J, Meyerhans A, Blanco J, Prado JG, Carrillo J, Clotet B, Massuti B, Provencio M, **Molina-Vila MA**, **Mayo de Las Casa C**, **Garzon M**, Cao P, Huang CY, Martinez-Picado J, **Rosell R**.
Assessment of the Feasibility and Safety of Durvalumab for Treatment of Solid Tumors in Patients With HIV-1 Infection: The Phase 2 DURVAST Study.
JAMA Oncol. 2020 Jul 1;6(7):1063-1067. doi: 10.1001/jamaoncol.2020.0465.

IMPORTANCE: Therapies targeting the programmed cell death 1 (PD-1) receptor or its ligand (PD-L1), such as the humanized monoclonal antibody durvalumab, have shown durable clinical responses in several tumor types. However, concerns about the safety and feasibility of PD-1/PD-L1 blockade in HIV-1-infected individuals have led to the exclusion of these patients from clinical trials on cancer immunotherapies. **OBJECTIVE:** To evaluate the feasibility and safety of durvalumab treatment in patients with advanced cancer and virologically controlled

HIV-1 infection. **DESIGN, SETTING, AND PARTICIPANTS:** The DURVAST study was a nonrandomized, open-label, phase 2 clinical trial in patients with any solid tumor type in which anti-PD-1 or anti-PD-L1 antibodies have approved indications or for which there are data of antitumoral activity with no other available curative therapy. All patients had basal undetectable plasma viremia while undergoing combination antiretroviral therapy. **INTERVENTIONS:** Treatment consisted of intravenous infusion of durvalumab (1500 mg every 4 weeks) until disease progression or unacceptable toxic effects. **MAIN OUTCOMES AND MEASURES:** Adverse events were graded with the use of the National Cancer Institute Common Terminology Criteria for Adverse Events, version 4.03. Tumor response was evaluated using the Response Evaluation Criteria in Solid Tumors version 1.1. **RESULTS:** A total of 20 HIV-1-infected patients with advanced cancer were enrolled; 16 (80%) were male, the median (range) age was 54 (30-73) years, and 12 (60%) had progressed with previous cancer treatment lines. A median (range) of 4 (1-16) cycles of durvalumab were administered. Drug-related adverse events were observed in 50% of patients, and all were grade 1 and 2 (mainly diarrhea, asthenia, and arthromyalgia). Four of 16 response-evaluable patients (25%) had a partial response. Five patients (31%) had stable disease, including 4 with durable stable disease (disease control rate of 50%). CD4+ and CD8+ T-cell counts and plasma HIV-1 viremia remained stable throughout the study. **CONCLUSIONS AND RELEVANCE:** Durvalumab treatment was feasible and safe in HIV-1-infected patients with cancer receiving combination antiretroviral therapy. HIV-1-infected patients on suppressive antiretroviral therapy with advanced cancer should have access to cancer immunotherapy treatments. **TRIAL REGISTRATION:** ClinicalTrials.gov Identifier: NCT03094286.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 31.777 **Quartil:** 1 **Categoria:** Oncology **Posición:** 8/242

Molina-Vila MA, Stahel RA, Dafni U, **Jordana-Ariza N**, **Balada-Bel A**, **Garzón-Ibáñez M**, **García-Peláez B**, **Mayo-de-Las-Casas C**, Felip E, Curioni Fontecedro A, Gautschi O, Peters S, Massutí B, Palmero R, Ponce Aix S, Carcereny E, Früh M, Pless M, Popat S, Cuffe S, Bidoli P, Kammler R, Roschitzki-Voser H, Tsourti Z, Karachaliou N, **Rosell R**.
Evolution and Clinical Impact of EGFR Mutations in Circulating Free DNA in the BELIEF Trial.
J Thorac Oncol. 2020 Mar;15(3):416-425. doi: 10.1016/j.jtho.2019.11.023. Epub 2019 Dec 5.

INTRODUCTION: Longitudinal evaluation of mutations in blood samples was a prespecified secondary objective in the BELIEF trial of erlotinib and bevacizumab in advanced EGFR-positive NSCLC. Here, we report the testing results and explore the correlation of EGFR status in blood with clinical outcomes. **METHODS:** Blood samples were prospectively collected from patients at baseline, at response evaluation, and at progression and sent to a central laboratory. Circulating free DNA was purified and EGFR mutations were analyzed with a validated real-time quantitative polymerase chain reaction assay. **RESULTS:** EGFR exon 19/21 mutations were detected in 55 of 91 baseline blood samples (60.4%) and correlated with a significantly worse progression-free survival: 11.4 months (95% confidence interval [CI]: 9.0-14.8 mo) for the patients who were positive versus 22.9 months (95% CI: 9.5-33.9 mo) for those who were negative (log-rank p = 0.0020). Among the 74 samples at response, exon 19/21 mutations were detected only in three samples (4.1%). In contrast, 29 of 58 patients (50.0%) were exon 19/21 positive at progression and showed a significantly worse median overall survival of 21.7 months (95% CI: 17.0-30.9 mo) compared with 37.4 months (95% CI: 22.6-53.1 mo) for those who were negative (log-rank p = 0.011). Blood samples at the three time points were available for 48 patients. Of those, among 14 exon 19/21 EGFR-negative at presentation, 13 (93%) were persistently negative for the sensitizing mutations after progression and the p.T790M could only be detected in the blood of two patients.**CONCLUSIONS:** Longitudinal testing of EGFR mutations in blood can offer valuable clinical information. In patients of the BELIEF study, detection of EGFR mutations in circulating free DNA at presentation was associated with shorter progression-free survival, whereas positivity at progression correlated with shorter overall survival. Finally, patients negative in blood at presentation were almost invariably negative at relapse.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 15.609 **Quartil:** 1 **Categoria:** Oncology; Respiratory System
Posición: Oncology 13/242; Respiratory System 4/64

Paik PK, Felip E, Veillon R, Sakai H, Cortot AB, Garassino MC, Mazieres J, **Viteri S**, Senellart H, Van Meerbeeck J, Raskin J, Reinmuth N, Conte P, Kowalski D, Cho BC, Patel JD, Horn L, Griesinger F, Han JY, Kim YC, Chang GC, Tsai CL, Yang JC, Chen YM, Smit EF, van der Wekken AJ, Kato T, Juraeva D, Stroh C, Bruns R, Straub J, Johne A, Scheele J, Heymach JV, Le X.

Tepotinib in Non-Small-Cell Lung Cancer with MET Exon 14 Skipping Mutations.

N Engl J Med. 2020 Sep 3;383(10):931-943. doi: 10.1056/NEJMoa2004407. Epub 2020 May 29.

BACKGROUND: A splice-site mutation that results in a loss of transcription of exon 14 in the oncogenic driver MET occurs in 3 to 4% of patients with non-small-cell lung cancer (NSCLC). We evaluated the efficacy and safety of tepotinib, a highly selective MET inhibitor, in this patient population. **METHODS:** In this open-label, phase 2 study, we administered tepotinib (at a dose of 500 mg) once daily in patients with advanced or metastatic NSCLC with a confirmed MET exon 14 skipping mutation. The primary end point was the objective response by independent review among patients who had undergone at least 9 months of follow-up. The response was also analyzed according to whether the presence of a MET exon 14 skipping mutation was detected on liquid biopsy or tissue biopsy. **RESULTS:** As of January 1, 2020, a total of 152 patients had received tepotinib, and 99 patients had been followed for at least 9 months. The response rate by independent review was 46% (95% confidence interval [CI], 36 to 57), with a median duration of response of 11.1 months (95% CI, 7.2 to could not be estimated) in the combined-biopsy group. The response rate was 48% (95% CI, 36 to 61) among 66 patients in the liquid-biopsy group and 50% (95% CI, 37 to 63) among 60 patients in the tissue-biopsy group; 27 patients had positive results according to both methods. The investigator-assessed response rate was 56% (95% CI, 45 to 66) and was similar regardless of the previous therapy received for advanced or metastatic disease. Adverse events of grade 3 or higher that were considered by investigators to be related to tepotinib therapy were reported in 28% of the patients, including peripheral edema in 7%. Adverse events led to permanent discontinuation of tepotinib in 11% of the patients. A molecular response, as measured in circulating free DNA, was observed in 67% of the patients with matched liquid-biopsy samples at baseline and during treatment. **CONCLUSIONS:** Among patients with advanced NSCLC with a confirmed MET exon 14 skipping mutation, the use of tepotinib was associated with a partial response in approximately half the patients. Peripheral edema was the main toxic effect of grade 3 or higher. (Funded by Merck [Darmstadt, Germany]; **VISION** ClinicalTrials.gov number, NCT02864992.).

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 91.253 **Quartil:** 1 **Categoria:** Medicine, Genral & Internal **Posición:** 1/16

Provencio M, Nadal E, Insa A, García-Campelo MR, Casal-Rubio J, Dómine M, Majem M, Rodríguez-Abreu D, Martínez-Martí A, De Castro Carpeño J, Cobo M, López Vivanco G, Del Barco E, Bernabé Caro R, Viñolas N, Barneto Aranda I, **Viteri S**, Pereira E, Royuela A, Casarrubios M, Salas Antón C, Parra ER, Wistuba I, Calvo V, Laza-Briviesca R, Romero A, Massuti B, Cruz-Bermúdez A.

Neoadjuvant chemotherapy and nivolumab in resectable non-small-cell lung cancer (NADIM): an open-label, multicentre, single-arm, phase 2 trial.

Lancet Oncol. 2020 Nov;21(11):1413-1422. doi: 10.1016/S1470-2045(20)30453-8. Epub 2020 Sep 24.

BACKGROUND: Non-small-cell lung cancer (NSCLC) is terminal in most patients with locally advanced stage disease. We aimed to assess the antitumour activity and safety of neoadjuvant chemoimmunotherapy for resectable stage IIIA NSCLC. **METHODS:** This was an open-label, multicentre, single-arm phase 2 trial done at 18

hospitals in Spain. Eligible patients were aged 18 years or older with histologically or cytologically documented treatment-naive American Joint Committee on Cancer-defined stage IIIA NSCLC that was deemed locally to be surgically resectable by a multidisciplinary clinical team, and an Eastern Cooperative Oncology Group performance status of 0 or 1. Patients received neoadjuvant treatment with intravenous paclitaxel (200 mg/m2) and carboplatin (area under curve 6; 6 mg/mL per min) plus nivolumab (360 mg) on day 1 of each 21-day cycle, for three cycles before surgical resection, followed by adjuvant intravenous nivolumab monotherapy for 1 year (240 mg every 2 weeks for 4 months, followed by 480 mg every 4 weeks for 8 months). The primary endpoint was progression-free survival at 24 months, assessed in the modified intention-to-treat population, which included all patients who received neoadjuvant treatment, and in the per-protocol population, which included all patients who had tumour resection and received at least one cycle of adjuvant treatment. Safety was assessed in the modified intention-to-treat population. This study is registered with ClinicalTrials.gov, NCT03081689, and is ongoing but no longer recruiting patients. **FINDINGS:** Between April 26, 2017, and Aug 25, 2018, we screened 51 patients for eligibility, of whom 46 patients were enrolled and received neoadjuvant treatment. At the time of data cutoff (Jan 31, 2020), the median duration of follow-up was 24·0 months (IQR 21·4-28·1) and 35 of 41 patients who had tumour resection were progression free. At 24 months, progression-free survival was 77·1% (95% CI 59·9-87·7). 43 (93%) of 46 patients had treatment-related adverse events during neoadjuvant treatment, and 14 (30%) had treatment-related adverse events of grade 3 or worse; however, none of the adverse events were associated with surgery delays or deaths. The most common grade 3 or worse treatment-related adverse events were increased lipase (three [7%]) and febrile neutropenia (three [7%]). **INTERPRETATION:** Our results support the addition of neoadjuvant nivolumab to platinum-based chemotherapy in patients with resectable stage IIIA NSCLC. Neoadjuvant chemoimmunotherapy could change the perception of locally advanced lung cancer as a potentially lethal disease to one that is curable. **FUNDING:** Bristol-Myers Squibb, Instituto de Salud Carlos III, European Union's Horizon 2020 research and innovation programme.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 41.316 **Quartil:** 1 **Categoria:** Oncology **Posición:** 5/242

Smyth LM, Piha-Paul SA, Won HH, Schram A, Saura C, Loi S, Lu J, Shapiro GI, Juric D, Mayer IA, Arteaga CL, de la Fuente MI, Brufksy AM, Spanggaard I, Mau-Sørensen, Arnedos M, Moreno V, Boni V, Sohn J, Schwartzberg LS,**Gonzàlez-Farré X**, Cervantes A,Bidard FC, Gorelick AN, LanmanRB, Nagy RJ, Ulaner GA, Chandarlapaty S, Jhaveri, K, Gavrila EI, Zimel C, Selcuklu SD, Melcer M, Samoila A, Cai Y,Scaltrit M, Mann G,Xu F, Eli LD, Dujka M, Lalani AS, Bryce R, Baselga J,Taylor BS,Solit DB, Meric-Bernstam F, Hyman DM

Efficacy and Determinants of Response to HER Kinase Inhibition in *HER2*-Mutant Metastatic Breast Cancer

Cancer Discov. February 5 2020; 10 (2): 198-213; doi: 10.1158/2159-8290.CD-19-0966

HER2 mutations define a subset of metastatic breast cancers with a unique mechanism of oncogenic addiction o HER2 signaling. We explored activity of the irreversible pan-HER kinase inhibitor neratinib, alone or with fulvestrant, in 81 patients with HER2-mutant metastatic breast cancer. Overall response rate was similar with or without estrogen receptor (ER) blockade. By comparison, progression-free survival and duration of response appeared longer in ER+ patients receiving combination therapy, although the study was not designed for direct comparison. Preexistent concurrent activating HER2 or HER3 alterations were associated with poor treatment outcome. Similarly, acquisition of multiple HER2-activating events, as well as gatekeeper alterations, were observed at disease progression in a high proportion of patients deriving clinical benefit from neratinib. Collectively, these data define HER2 mutations as a therapeutic target in breast cancer and suggest that coexistence of additional HER signaling alterations may promote both de novo and acquired resistance to neratinib. **SIGNIFICANCE:** HER2 mutations define a targetable breast cancer subset, although sensitivity to irreversible HER kinase inhibition appears to be modified by the presence of concurrent activating genomic

events in the pathway. These findings have implications for potential future combinatorial approaches and broader therapeutic development for this genomically defined subset of breast cancer.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 39.397 **Quartil:** 1 **Categoria:** Oncology **Posición:** 6/242

Thunnissen E, Kerr KM, Dafni U, Bubendorf L, Finn SP, Soltermann A, Biernat W, Cheney R, Verbeken E, Warth A, Marchetti A, Speel EM, Pokharel S, Quinn AM, Monkhorst K, Navarro A, Madsen LB, Tsourti Z, Geiger T, Kammler R, Peters S, Stahel RA; European Thoracic Oncology Platform Lungscape Consortium.
Collaborators: Stahel RA**, Rosell R**, Blackhall F, Dafni U, Kerr KM, Molina MA, Bubendorf L, Weder W, Thunnissen E, Peters S, Finn S, Hiltbrunner A, Kammler R, Geiger T, Marti N, Tsourti Z, Polydoropoulou V, Zygoura P, Nicolson M, Stevenson DAJ, Mathieson W, Smit E, Radonic T, Soltermann A, Rulle U, Curioni A, Gray SG, Gately K, Barr M, Meldgaard P, Madsen LB, Savic S, Lardinois D, Nackaerts K, Dooms C, Wauters E, Van Der Borght S, Biernat W, Wrona A, Rzyman W, Jassem J, Dienemann H, Muley T, Warth A, Marchetti A, De Luca G, di Lorito A, Dingemans AM, Speel EM, Ruland A, Pokharel S, Cheney R, Ferenczy P, Quinn AM, Franklin L, Baas P, Monkhorst K, van de Wiel B, Camps C, Martorell M, Navarro A.
Programmed death-ligand 1 expression influenced by tissue sample size. Scoring based on tissue microarrays' and cross-validation with resections, in patients with, stage I-III, non-small cell lung carcinoma of the European Thoracic Oncology Platform Lungscape cohort.
Mod Pathol. 2020 May;33(5):792-801. doi: 10.1038/s41379-019-0383-9. Epub 2019 Nov 18.

PD-L1, as assessed by immunohistochemistry, is a predictive biomarker for immuno-oncology treatment in lung cancer. Different scoring methods have been used to assess its status, resulting in a wide range of positivity rates. We use the European Thoracic Oncology Platform Lungscape non-small cell lung carcinoma cohort to explore this issue. PD-L1 expression was assessed via immunohistochemistry on tissue microarrays (up to four cores per case), using the DAKO 28-8 immunohistochemistry assay, following a two-round external quality assessment procedure. All samples were analyzed under the same protocol. Cross-validation of scoring between tissue microarray and whole sections was performed in 10% randomly selected samples. Cutoff points considered: ≥1, 50 (primarily), and 25%. At the two external quality assessment rounds, tissue microarray scoring agreement rates between pathologists were: 73% and 81%. There were 2008 cases with valid immunohistochemistry tissue microarray results (50% all cores evaluable). Concordant cases at 1, 25, and 50% were: 85, 91, and 93%. Tissue microarray core results were identical for 70% of cases. Sensitivity of the tissue microarray method for 1, 25, and 50% was: 80, 78, and 79% (specificity: 90, 95, 98%). Complete agreement between tissue microarrays and whole sections was achieved for 60% of the cases. Highest sensitivity rates for 1% and 50% cutoffs were detected for higher number of cores. Underestimation of PD-L1 expression on small samples is more common than overestimation. We demonstrated that classification of PD-L1 on small biopsy samples does not represent the overall expression of PD-L1 in all non-small cell cancer carcinoma cases, although the majority of cases are 'correctly' classified. In future studies, sampling more and larger biopsies, recording the biopsy size and tumor load may permit further refinement, increasing predictive accuracy.

Indexado en: WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 7.842 **Quartil:** 1 **Categoria:** Pathology **Posición:** 6/77

MEDICINA INTERNA Y FAMILIAR

Combes A, Auzinger G, Capellier G, du Cheyron D, Clement I, Consales G, Dabrowski W, De Bels D, **de Molina Ortiz FJG**, Gottschalk A, Hilty MP, Pestaña D, Sousa E, Tully R, Goldstein J, Harenski K.
ECCO(2)R therapy in the ICU: consensus of a European round table meeting.
Crit Care. 2020 Aug 7;24(1):490. doi: 10.1186/s13054-020-03210-z.

BACKGROUND: With recent advances in technology, patients with acute respiratory distress syndrome (ARDS) and severe acute exacerbations of chronic obstructive pulmonary disease (ae-COPD) could benefit from extracorporeal CO2 removal (ECCO2R). However, current evidence in these indications is limited. A European ECCO2R Expert Round Table Meeting was convened to further explore the potential for this treatment approach. **METHODS:** A modified Delphi-based method was used to collate European experts' views to better understand how ECCO2R therapy is applied, identify how patients are selected and how treatment decisions are made, as well as to identify any points of consensus. **RESULTS:** Fourteen participants were selected based on known clinical expertise in critical care and in providing respiratory support with ECCO2R or extracorporeal membrane oxygenation. ARDS was considered the primary indication for ECCO2R therapy (n = 7), while 3 participants considered ae-COPD the primary indication. The group agreed that the primary treatment goal of ECCO2R therapy in patients with ARDS was to apply ultra-protective lung ventilation via managing CO2 levels. Driving pressure (≥ 14 cmH2O) followed by plateau pressure (Pplat; ≥ 25 cmH2O) was considered the most important criteria for ECCO2R initiation. Key treatment targets for patients with ARDS undergoing ECCO2R included pH (> 7.30), respiratory rate (< 25 or < 20 breaths/min), driving pressure (< 14 cmH2O) and Pplat (< 25 cmH2O). In ae-COPD, there was consensus that, in patients at risk of non-invasive ventilation (NIV) failure, no decrease in PaCO2 and no decrease in respiratory rate were key criteria for initiating ECCO2R therapy. Key treatment targets in ae-COPD were patient comfort, pH (> 7.30-7.35), respiratory rate (< 20-25 breaths/min), decrease of PaCO2 (by 10-20%), weaning from NIV, decrease in HCO3- and maintaining haemodynamic stability. Consensus was reached on weaning protocols for both indications. Anticoagulation with intravenous unfractionated heparin was the strategy preferred by the group. **CONCLUSIONS:** Insights from this group of experienced physicians suggest that ECCO2R therapy may be an effective supportive treatment for adults with ARDS or ae-COPD. Further evidence from randomised clinical trials and/or high-quality prospective studies is needed to better guide decision making.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 9.097 **Quartil:** 1 **Categoria:** Critical Care Medicine **Posición:** 5/36

OBSTETRICIA i GINECOLOGIA - SALUT DE LA DONA DEXEUS

Anfelter P, Testa A, Chiappa V, Froyman W, Fruscio R, Guerriero S, Alcazar JL, Mascillini F, **Pascual MA**, Sibal M, Savelli L, Zannoni GF, Timmerman D, Epstein E.
Imaging in gynecological disease (17): ultrasound features of malignant ovarian yolk sac tumors (endodermal sinus tumors).
Ultrasound Obstet Gynecol. 2020 Aug;56(2):276-284. doi: 10.1002/uog.22002.

Erratum in
Ultrasound Obstet Gynecol. 2020 Dec;56(6):966.

OBJECTIVE: To describe the clinical and sonographic characteristics of malignant ovarian yolk sac tumors (YSTs).
METHODS: In this retrospective multicenter study, we included 21 patients with a histological diagnosis of ovarian YST and available transvaginal ultrasound images and/or videoclips and/or a detailed ultrasound report.

Ten patients identified from the International Ovarian Tumor Analysis (IOTA) studies had undergone a standardized preoperative ultrasound examination, by an experienced ultrasound examiner, between 1999 and 2016. A further 11 patients were identified through medical files, for whom ultrasound images were retrieved from local image workstations and picture archiving and communication systems. All tumors were described using IOTA terminology. The collected ultrasound images and videoclips were used by two observers for additional characterization of the tumors. **RESULTS:** All cases were pure YSTs, except for one that was a mixed tumor (80% YST and 20% embryonal carcinoma). Median age at diagnosis was 25 (interquartile range (IQR), 19.5-30.5) years. Seventy-six percent (16/21) of women had an International Federation of Gynecology and Obstetrics (FIGO) Stage I-II tumor at diagnosis. Fifty-eight percent (11/19) of women felt pain during the ultrasound examination and one presented with ovarian torsion. Median serum α-fetoprotein (S-AFP) level was 4755 (IQR, 1071-25 303) μg/L and median serum CA 125 level was 126 (IQR, 35-227) kU/L. On ultrasound assessment, 95% (20/21) of tumors were unilateral. The median maximum tumor diameter was 157 (IQR, 107-181) mm and the largest solid component was 110 (IQR, 66-159) mm. Tumors were classified as either multilocular-solid (10/21; 48%) or solid (11/21; 52%). Papillary projections were found in 10% (2/21) of cases. Most (20/21; 95%) tumors were well vascularized (color score, 3-4) and none had acoustic shadowing. Malignancy was suspected in all cases, except in the patient with ovarian torsion, who presented a tumor with a color score of 1, which was classified as probably benign. Image and videoclip quality was considered as adequate in 18/21 cases. On review of the images and videoclips, we found that all tumors contained both solid components and cystic spaces, and that 89% (16/18) had irregular, still fine-textured and slightly hyperechoic solid tissue, giving them a characteristic appearance. **CONCLUSION:** Malignant ovarian YSTs are often detected at an early stage, in young women usually in the second or third decade of life, presenting with pain and markedly elevated S-AFP. On ultrasound, malignant ovarian YSTs are mostly unilateral, large and multilocular-solid or solid, with fine-textured slightly hyperechoic solid tissue and rich vascularization.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Alonso Pacheco L, Ata B, Bettocchi S, Campo R, Carugno J, Checa MA, de Angelis C, Di Spiezio Sardo A, Donnez J, Farrugia M, Ferro J, Franchini M, Garzon S, Gianaroli L, Gergolet M, Gubbini G, Gordts S, Grimbizis G, Haimovich S, Laganà AS, Li TC, Mencaglia L, Rienzi L, Saravelos S, Soares SR, Tanos V, **Ubeda A**, Ubaldi FM, Van Herendael B, Vereczkey A, Vitagliano A, Vitale SG, Zullo F.

Septate uterus and reproductive outcomes: let's get serious about this.

Hum Reprod. 2020 Nov 1;35(11):2627-2629. doi: 10.1093/humrep/deaa230.

Comment in
Hum Reprod. 2020 Nov 1;35(11):2630-2631.

Comment on
Hum Reprod. 2020 Jul 1;35(7):1578-1588.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.211 **Quartil:** 1 **Categoria:** Reproductive Biology; Endocrinology & Metabolism
Posición: Reproductive Biology 4/30; Endocrinology & Metabolism 34/146

Alviggi C, Esteves SC, Orvieto R, Conforti A, La Marca A, Fischer R, Andersen CY, Bühler K, Sunkara SK, **Polyzos NP**, Strina I, Carbone L, Bento FC, Galliano D, Yarali H, Vuong LN, Grynberg M, Drakopoulos P, Xavier P, Llacer J, Neuspiller F, Horton M, Roque M, Papanikolaou E, Banker M, Dahan MH, Foong S, Tournaye H, Blockeel C, Vaiarelli A, Humaidan P, Ubaldi FM; POSEIDON (Patient-Oriented Strategies Encompassing IndividualizeD Oocyte Number) group.

COVID-19 and assisted reproductive technology services: repercussions for patients and proposal for individualized clinical management.

Reprod Biol Endocrinol. 2020 May 13;18(1):45. doi: 10.1186/s12958-020-00605-z.

The prolonged lockdown of health services providing high-complexity fertility treatments -as currently recommended by many reproductive medicine entities- is detrimental for society as a whole, and infertility patients in particular. Globally, approximately 0.3% of all infants born every year are conceived using assisted reproductive technology (ART) treatments. By contrast, the total number of COVID-19 deaths reported so far represents approximately 1.0% of the total deaths expected to occur worldwide over the first three months of the current year. It seems, therefore, that the number of infants expected to be conceived and born -but who will not be so due to the lockdown of infertility services- might be as significant as the total number of deaths attributed to the COVID-19 pandemic. We herein propose remedies that include a prognostic-stratification of more vulnerable infertility cases in order to plan a progressive restart of worldwide fertility treatments. At a time when preventing complications and limiting burdens for national health systems represent relevant issues, our viewpoint might help competent authorities and health care providers to identify patients who should be prioritized for the continuation of fertility care in a safe environment.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 5.211 **Quartil:** 1 **Categoria:** Reproductive Biology; Endocrinology & Metabolism
Posición: Reproductive Biology 4/30; Endocrinology & Metabolism 34/146

Boada M, Perez-Poch A, **Ballester M**, **Gárcia S**, González DV, **Rodríguez I**, **Barri PN**, **Veiga A.**

Corrigendum to P-434 (Effect of microgravity on frozen human sperm samples. Can they be sent to space?).

Hum Reprod. 2020 Mar 27;35(3):739. doi: 10.1093/humrep/dez183.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.918 **Quartil:**1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Calaf J, Cancelo MJ, Andeyro M, Jiménez JM, Perelló J, Correa M, **Parera N**, Lete LI, Calvo A, Doval JL, Duarte R, García JL, Colomé C.

Development and Psychometric Validation of a Screening Questionnaire to Detect Excessive Menstrual Blood Loss That Interferes in Quality of Life: The SAMANTA Questionnaire.

J Womens Health (Larchmt). 2020 Jul;29(7):1021-1031. doi: 10.1089/jwh.2018.7446. Epub 2020 Jun 22.

Background: Heavy menstrual bleeding (HMB) affects up to 35% of women at some point in their lives, and has an important impact on their quality of life (QoL). Current techniques to assess and quantify menstrual blood loss are inconvenient and the correlation between actual and perceived blood loss is poor. This study aimed to develop and validate a screening questionnaire in Spanish to identify HMB in women of reproductive age. Methods: The study consisted of two phases: the conceptual development of a set of items to discriminate between women with and without HMB and the assessment of the sensitivity and specificity of these items. Correlation of the screening tool with women's perception of the intensity of bleeding and the interference in their daily life activities was also assessed. Results: An initial set of 46 items were identified, from which 21 items were selected following the cognitive interviews. For the psychometric validation phase, 389 patients were enrolled, of whom 364 were assessable: 211 cases with Pictorial Blood loss Assessment Chart-confirmed

excessive menstrual loss (EML) and 153 controls. Six items met entry criteria in the model and together yielded a sensitivity of 86.7% and specificity of 89.5% to identify cases and controls. These items were weighted according to their contribution to the final model to yield a tool that can be scored from 0 to 10 being 3 the cutoff point to diagnose EML that interferes in QoL. Conclusions: The 6-item SAMANTA questionnaire represents a valid screening tool to easily identify women with EML that interfere with QoL.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SSCI)
Factor Impacto: 2.681 **Quartil:** 1
Categoria: Womens Studies; Public, Environmental & Occupational Health
Posición: Womens Studies 13/60; Public, Environmental & Occupational Health 74/176

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 2.681 **Quartil:** 1
Categoria: Medicine, General & Internal; Obstetrics & Gynecology
Posición: Medicine, General & Internal 38/315; Obstetrics & Gynecology 21/121

Gaggiotti-Marre S, **Álvarez M**, **González-Foruria I**, **Parriego M**, **Garcia S**, **Martínez F**, **Barri PN**, **Polyzos NP**, **Coroleu B**.
Low progesterone levels on the day before natural cycle frozen embryo transfer are negatively associated with live birth rates.
Hum Reprod. 2020 Jul 1;35(7):1623-1629. doi: 10.1093/humrep/deaa092.

STUDY QUESTION: Are progesterone (P) levels on the day before natural cycle frozen embryo transfer (NC-FET) associated with live birth rate (LBR)? **SUMMARY ANSWER:** Regular ovulatory women undergoing NC-FET with serum P levels <10 ng/ml on the day before blastocyst transfer have a significantly lower LBR than those with serum P levels >10 ng/ml. **WHAT IS KNOWN ALREADY:** The importance of serum P levels around the time of embryo transfer in patients undergoing FET under artificial endometrial preparation has been well established. However, no study has analyzed the importance of serum P levels in patients undergoing FET under a true natural endometrial preparation cycle. **STUDY DESIGN, SIZE, DURATION:** This was a retrospective cohort study including 294 frozen blastocyst transfers under natural cycle endometrial preparation at a university-affiliated fertility centre between January 2016 and January 2019. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** All patients had regular menstrual cycles and underwent NC-FET with their own oocytes. Only patients who had undergone serum P measurement between 8 am and 11 am on the day before FET were included. Patients did not receive any external medication for endometrial preparation or luteal phase support. Patients were divided into two groups according to serum P levels below or above 10 ng/ml on the day before FET. Univariate analysis was carried out to describe and compare the cycle characteristics with reproductive outcomes. To evaluate the effect of P, a multivariable logistic model was fitted for each outcome after adjusting for confounding variables.
MAIN RESULTS AND THE ROLE OF CHANCE: Mean serum P levels on the day before FET were significantly higher in patients who had a live birth compared to those who did not (14.5 ± 7.0 vs 12.0 ± 6.6 ng/ml, 95% CI [0.83; 4.12]). The overall clinical pregnancy rate (CPR) and LBR were 42.9% and 35.4%, respectively. Patients in the higher P group (>10 ng/ml) had a higher LBR (41.1% vs 25.7%: risk difference (RD) 15.4%, 95% CI [5; 26]) and CPR (48.6% vs 33.0%: RD 15.6%, 95% CI [4; 27]). Patients with higher serum P levels on the day before FET (63% of patients) had an improved LBR (odds ratio: 1.05; 95% CI [1.02; 1.09]). Women with serum P levels <10 ng/ml on the day before FET (37% of patients) had significantly higher weights (62.5 ± 9.9 vs 58.1 ± 7.1 kg, 95% CI [1.92; 6.90]) and BMI (22.9 ± 3.6 vs 21.6 ± 2.7 kg/m2, 95% CI [0.42; 2.25]) compared to patients with P levels >10 ng/ml. **LIMITATIONS, REASONS FOR CAUTION:** The main limitation of our study is its retrospective design. Other potential limitations are the detection of LH surge through urine testing and the inclusion of patients who did and did not undergo preimplantation genetic testing for aneuploidies. The protocol used in our institution for monitoring NC-FET does not look for the onset of progesterone secretion by the corpus luteum, and a slow luteinisation process or delay of corpus luteum function cannot be ruled out. **WIDER IMPLICATIONS OF THE**

FINDINGS: We provide evidence that a minimum serum P threshold (P >10 ng/ml) might be required for improved reproductive outcomes in NC-FET. This result suggests that there are different mechanisms by which P is produced and/or distributed by each patient. This study also provides an excellent model to evaluate the impact of luteal phase defect through NC-FET. A prospective evaluation to assess whether P supplementation should be individualised according to patient's needs is necessary to support our findings. **STUDY FUNDING/COMPETING INTEREST(S):** No external funding was used, and there are no competing interests.

Indexado en: PubMed/WOS/JCR/JCI/ Science Citation Index Expanded (SCIE)
Factor de Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Guerriero S, Ajossa S, **Pascual MA**, **Rodriguez I**, Piras A, Perniciano M, Saba L, Paoletti AM, Mais V, Alcazar JL.
Ultrasonographic soft markers for detection of rectosigmoid deep endometriosis.
Ultrasound Obstet Gynecol. 2020 Feb;55(2):269-273. doi: 10.1002/uog.20289.

OBJECTIVES: The aim of this study was to evaluate the use of ultrasound (US) soft markers as a first-line imaging tool to raise suspicion of rectosigmoid (RS) involvement in women suspected of having deep endometriosis. **METHODS:** We included in this prospective observational study all patients with clinical suspicion of deep endometriosis who underwent diagnostic transvaginal US evaluation at our unit from January 2016 to February 2017. Several US soft markers were evaluated for prediction of RS involvement (presence of US signs of uterine adenomyosis, presence of an endometrioma, adhesion of the ovary to the uterus (reduced ovarian mobility), presence of 'kissing ovaries' (KO) and absence of the 'sliding sign'), using as the gold standard expert US examination for the presence of RS endometriosis. **RESULTS:** Included were 333 patients with clinical suspicion of deep endometriosis. Of these, 106 had an US diagnosis of RS endometriosis by an expert. The only significant variables found in the prediction model were absence of the sliding sign (odds ratio (OR), 13.95; 95% CI, 7.7-25.3), presence of KO (OR, 22.5; 95% CI, 4.1-124.0) and the interaction between these two variables (OR, 0.03; 95% CI, 0.004-0.28). Regarding their interaction, RS endometriosis was present when KO was absent and the sliding sign was present in 10% (19/190) of cases, when both KO and the sliding sign were present in 71.4% (5/7) of cases, when both KO and the sliding sign were absent in 60.8% (76/125) of cases and when KO was present and the sliding sign was absent in 54.5% (6/11) of cases. Thus, when the sliding sign was absent and/or KO was present, transvaginal US showed a specificity of 75% (95% CI, 69-80%) and a sensitivity of 82% (95% CI, 73-88%). **CONCLUSIONS:** US findings of absence of the sliding sign and/or presence of KO in patients with clinical suspicion of endometriosis should raise suspicion of RS involvement and indicate referral for expert US examination, with a low rate of false-negative diagnosis. Copyright © 2019 ISUOG. Published by John Wiley & Sons Ltd.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Montoya-Botero P, **Martinez F**, **Rodríguez-Purata J**, **Rodríguez I**, **Coroleu B**, **Polyzos NP**.
The effect of type of oral contraceptive pill and duration of use on fresh and cumulative live birth rates in IVF/ICSI cycles.
Hum Reprod. 2020 Apr 28;35(4):826-836. doi: 10.1093/humrep/dez299.

Erratum in
Hum Reprod. 2021 Mar 18;36(4):1159-1161.

STUDY QUESTION: Are there any differences in the fresh (LB) and cumulative live birth rates (CLBR) of women undergoing controlled ovarian stimulation (COS) for IVF/ICSI following pretreatment with different types of oral contraceptive pills (OCP) for different durations as compared to no-OCP? **SUMMARY ANSWER:** OCP administration for an interval of 12- to 30-day treatment period and with a 5-day washout period does not affect clinical pregnancy, LB nor cumulative LB in patients undergoing COS for an IVF cycle. **WHAT IS KNOWN ALREADY:** The use of OCP is an effective way of treatment planning in IVF/ICSI cycles, but published evidence about its effect on pregnancy and LBR is inconsistent, some studies finding decreased rates but others no difference. **STUDY DESIGN, SIZE, DURATION:** This is a retrospective analysis carried out in a University-affiliated tertiary centre between January 2009 and December 2017. Overall, 4116 infertile women between 18 and 45 years, who underwent their first ovarian stimulation cycle in our centre, were included. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** Patients were categorised into two groups as receiving OCP (n = 3517) or not (no OCP, n = 599). All patients with OCP pretreatment initiated controlled ovarian stimulation (COS) 5 days post-pill. Overall, two types of OCP were used at the study's centre: ethinylestradiol (EE) 30 µg/desogestrel 150 µg, a third-generation progesterone; or EE 30 µg/drospirenone 3 mg, a fourth-generation progestin with mild antiandrogenic activity. **MAIN RESULTS AND THE ROLE OF CHANCE**: A total of n = 4116 patients were analysed, (OCP n = 3517 and non-OCP n = 599). The use of OCP was independently associated with a small increase in the number of oocytes retrieved after adjusting for age, BMI, use of OCP, cause of infertility, initial dose (IU), type of gonadotropin, stimulation days, total stimulation units (total IU) (β 0.22, 95% CI 0.12-0.31). Cumulative LBRs were comparable between groups OCP versus non-OCP (32.4 versus 31.6%, P = 0.712). Following adjustment for age, BMI, infertility diagnosis, starting and total dose, type of gonadotropin, total days of stimulation, type of insemination, number of oocytes retrieved, day of transfer and number of embryos transferred in a multiple logistic analysis, patients using OCPs had a similar probability of achieving a LB as compared with patients not-using OCPs following fresh embryo transfer (ORadj 0.89, 95% CI 0.69-1.15) and a similar probability for CLBR after the use of fresh and frozen embryos (ORadj 0.94, 95% CI 0.73-1.21). No differences were observed in ovarian stimulation and clinical outcomes between drospirenone and desogestrel OCP groups. **LIMITATIONS, REASONS FOR CAUTION:** Limitations are related to the retrospective nature of the study; despite the sample size, the adjustments and the multivariable regression analysis conducted, we cannot exclude the presence of confounding bias. OCP administration was not randomly assigned, not allowing to exclude the presence of selection bias. Lastly, we only used two types of OCP with durations and washout periods as per institution protocol. Therefore, we cannot exclude that longer duration of administration, a different type of OCP or different pill-free interval might have had an alternative effect on LBR or CLBR; thus, the generalizability of this study's results should be considered with caution. **WIDER IMPLICATIONS OF THE FINDINGS:** Our study provides reassuring evidence that the use of 12-30 days OCP for cycle programming, prior to IVF, does not decrease the chance of live birth and cumulative live birth rates. **STUDY FUNDING/COMPETING INTEREST(S):** No external funding was used for this study. This research was performed under the auspices of 'Càtedra d'Investigació en Obstetrícia I Ginecologia' of the Department of Obstetrics, Gynaecology and Reproductive Medicine, Hospital Universitario Dexeus, Universitat Autònoma de Barcelona. The authors report no conflict of interest associated with the current study. **TRIAL REGISTRATION NUMBER:** NA.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Polyzos NP, Popovic-Todorovic B.
SAY NO to mild ovarian stimulation for all poor responders: it is time to realize that not all poor responders are the same.
Hum Reprod. 2020 Sep 1;35(9):1964-1971. doi: 10.1093/humrep/deaa183.

Comment in
Hum Reprod. 2021 Mar 18;36(4):1157-1158.
Hum Reprod. 2021 Mar 18;36(4):1157.

Over the last 25 years, a vast body of literature has been published evaluating different treatment modalities for the management of poor ovarian responders. Despite the evidence that maximizing ovarian response can improve the chances of live born babies in poor responders, there are still voices suggesting that all poor responders are the same, irrespective of their age and their actual ovarian reserve. This has resulted in the suggestion of adopting a mild ovarian stimulation approach for all poor responders, based on the results of several trials which failed to identity differences when comparing mild and more intense stimulation in predicted poor responders. The current article analyzes in detail these studies and discusses the shortcomings in terms of type of population included, outcomes and settings performed, which may actually be responsible for the belief that only mild stimulation should be used. In the era of individualization in medicine, it must be realized that there are subgroups of predicted poor responders who will benefit from an individual rather than 'one fits all' mild stimulation approach and thus we should provide the same standard of treatment for all our poor responder patients.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Sanin-Ramirez D, Carriles I, **Graupera B**, Ajossa S, Neri M, **Rodriguez I**, **Pascual MÁ**, Guerriero S, Alcázar JL.
Two-dimensional transvaginal sonography vs saline contrast sonohysterography for diagnosing endometrial polyps: systematic review and meta-analysis.
Ultrasound Obstet Gynecol. 2020 Oct;56(4):506-515. doi: 10.1002/uog.22161. Epub 2020 Sep 14.

OBJECTIVE: To compare the diagnostic performance of two-dimensional transvaginal sonography (TVS) and saline contrast sonohysterography (SCSH) for the diagnosis of endometrial polyps in studies that used both tests in the same group of patients. **METHODS:** This was a systematic review and meta-analysis. An extensive search was conducted of Medline (PubMed), Cochrane Library and Web of Science, for studies comparing the diagnostic performance of TVS and SCSH for identifying endometrial polyps, published between January 1990 and December 2019, that reported a definition of endometrial polyp on TVS and SCSH and used pathologic analysis as the reference standard. Quality of the included studies was assessed using the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool. A random-effects model was used to determine pooled sensitivity, specificity and positive and negative likelihood ratios of TVS and SCSH in the detection of endometrial polyps. Subanalysis according to menopausal status was performed. **RESULTS:** In total, 1278 citations were identified; after exclusions, 25 studies were included in the meta-analysis. In the included studies,

the risk of bias evaluated using QUADAS-2 was low for most of the four domains, except for flow and timing, which had an unclear risk of bias in 13 studies. Pooled sensitivity, specificity and positive and negative likelihood ratios for TVS in the detection of endometrial polyps were 55.0% (95% CI, 46.0-64.0%), 91.0% (95% CI, 86.0-94.0%), 5.8 (95% CI, 3.9-8.7) and 0.5 (95% CI, 0.41-0.61), respectively. The corresponding values for SCSH were 92.0% (95% CI, 87.0-95.0%), 93.0% (95% CI, 91.0-95.0%), 13.9 (95% CI, 9.9-19.5) and 0.08 (95% CI, 0.05-0.14), respectively. Significant differences were found when comparing the methods in terms of sensitivity (P < 0.001), but not for specificity (P = 0.0918). Heterogeneity was high for TVS and moderate for SCSH. On subanalysis according to menopausal status, SCSH was found to have higher diagnostic accuracy in both pre- and postmenopausal women; sensitivity and specificity did not differ significantly between the groups for either TVS or SCSH. **CONCLUSION:** Given that SCSH has better diagnostic positive and negative likelihood ratios than does TVS in both pre- and postmenopausal women, those with clinical suspicion of endometrial polyps should undergo SCSH if TVS findings are inconclusive. © 2020 International Society of Ultrasound in Obstetrics and Gynecology.

Publisher: Ecografía transvaginal bidimensional vs histerosonografía con contraste salino para el diagnóstico de pólipos endometriales: revisión sistemática y metaanálisis OBJETIVO: Comparar el desempeño del diagnóstico de la ecografía transvaginal bidimensional (TVS, por sus siglas en inglés) y la histerosonografía con contraste salino (SCSH, por sus siglas en inglés) para el diagnóstico de pólipos endometriales en estudios que utilizaron ambas pruebas en el mismo grupo de pacientes. **MÉTODOS:** Este estudio fue una revisión sistemática y metaanálisis. El estudio realizó una extensa búsqueda en Medline (PubMed), Cochrane Library y Web of Science de estudios en los que se había comparado el desempeño del diagnóstico de la TVS y la SCSH para identificar pólipos endometriales, publicados entre enero de 1990 y diciembre de 2019, que incluyeran una definición de pólipo endometrial en la TVS y la SCSH y utilizaran el análisis patológico como estándar de referencia. La calidad de los estudios incluidos se evaluó mediante la herramienta de Evaluación de Calidad de los Estudios de Precisión en el Diagnóstico-2 (QUADAS-2, por sus siglas en inglés). Se utilizó un modelo de efectos aleatorios para determinar la sensibilidad combinada, la especificidad, los cocientes de verosimilitud positivos y negativos de la TVS y la SCSH en la detección de pólipos endometriales. Se realizó un subanálisis en función del estatus de la menopausia. **RESULTADOS:** Se identificaron un total de 1278 citas, de las cuales se incluyeron 25 estudios en el metaanálisis. En los estudios incluidos, el riesgo de sesgo evaluado mediante QUADAS-2 fue bajo para la mayoría de los cuatro dominios, excepto para el flujo y el tiempo, que tuvieron un riesgo de sesgo poco claro en 13 estudios. La sensibilidad combinada, la especificidad y los cocientes de verosimilitud positivos y negativos para la TVS en la detección de pólipos endometriales fueron del 55,0% (IC 95%, 46,0-64,0%), 91,0% (IC 95%, 86,0-94,0%), 5,8 (IC 95%, 3,9-8,7) y 0,5 (IC 95%, 0,41-0,61), respectivamente. Los valores correspondientes para la SCSH fueron 92,0% (IC 95%, 87,0-95,0%), 93,0% (IC 95%, 91,0-95,0%), 13,9 (IC 95%, 9,9-19,5) y 0,08 (IC 95%, 0,05-0,14), respectivamente. Se encontraron diferencias significativas al comparar los métodos respecto a la sensibilidad (P<0,001), pero no respecto a la especificidad (P=0,0918). La heterogeneidad fue alta para la TVS y moderada para la SCSH. En el subanálisis según el estado menopáusico, se determinó que la SCSH tenía una mayor precisión en el diagnóstico en las mujeres pre- y posmenopáusicas, mientras que la sensibilidad y la especificidad no difirieron significativamente entre ambos grupos, tanto para la TVS como para la SCSH. **CONCLUSIÓN:** Dado que la SCSH tiene mejores coeficientes de verosimilitud positivos y negativos de diagnóstico que la TVS en las mujeres pre- y posmenopáusicas, las mujeres con sospecha clínica de pólipos endometriales deberían someterse a una SCSH si los hallazgos de la TVS no son concluyentes.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 7.299 **Quartil:** 1
Categoria: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging
Posición: Acoustics 2/31; Obstetrics & Gynecology 5/83; Radiology, Nuclear Medicine & Medical Imaging 10/133

Santos-Ribeiro S, Mackens S, Popovic-Todorovic B, Racca A, **Polyzos NP**, Van Landuyt L, Drakopoulos P, de Vos M, Tournaye H, Blockeel C.
The freeze-all strategy versus agonist triggering with low-dose hCG for luteal phase support in IVF/ICSI for high responders: a randomized controlled trial.
Hum Reprod. 2020 Dec 1;35(12):2808-2818. doi: 10.1093/humrep/deaa226.

Comment in
Hum Reprod. 2020 Dec 1;35(12):2660-2662.

STUDY QUESTION: Does the freeze-all strategy in high-responders increase pregnancy rates and improve safety outcomes when compared with GnRH agonist triggering followed by low-dose hCG intensified luteal support with a fresh embryo transfer? **SUMMARY ANSWER:** Pregnancy rates after either fresh embryo transfer with intensified luteal phase support using low-dose hCG or the freeze-all strategy did not vary significantly; however, moderate-to-severe ovarian hyperstimulation syndrome (OHSS) occurred more frequently in the women who attempted a fresh embryo transfer. **WHAT IS KNOWN ALREADY: Two** strategies following GnRH agonist triggering (the freeze-all approach and a fresh embryo transfer attempt using a low-dose of hCG for intensified luteal phase support) are safer alternatives when compared with conventional hCG triggering with similar pregnancy outcomes. However, these two strategies have never been compared head-to-head in an unrestricted predicted hyper-responder population. **STUDY DESIGN, SIZE, DURATION:** This study included women with an excessive response to ovarian stimulation (≥18 follicles measuring ≥11 mm) undergoing IVF/ICSI in a GnRH antagonist suppressed cycle between 2014 and 2017. Our primary outcome was clinical pregnancy at 7 weeks after the first embryo transfer. Secondary outcomes included live birth and the development of moderate-to-severe OHSS. **PARTICIPANTS/MATERIALS, SETTING, METHODS:** Following GnRH agonist triggering, women were randomized either to cryopreserve all good-quality embryos followed by a frozen embryo transfer in an subsequent artificial cycle or to perform a fresh embryo transfer with intensified luteal phase support (1500 IU hCG on the day of oocyte retrieval, plus oral estradiol 2 mg two times a day, plus 200 mg of micronized vaginal progesterone three times a day). **MAIN RESULTS AND THE ROLE OF CHANCE:** A total of 212 patients (106 in each arm) were recruited in the study, with three patients (one in the fresh embryo transfer group and two in the freeze-all group) later withdrawing their consent to participate in the study. One patient in the freeze-all group became pregnant naturally (clinical pregnancy diagnosed 38 days after randomization) prior to the first frozen embryo transfer. The study arms did not vary significantly in terms of the number of oocytes retrieved and embryos produced/transferred. The intention to treat clinical pregnancy and live birth rates (with the latter excluding four cases lost to follow-up: one in the fresh transfer and three in the freeze-all arms, respectively) after the first embryo transfer did not vary significantly among the fresh embryo transfer and freeze-all study arms: 51/105 (48.6%) versus 57/104 (54.8%) and 41/104 (39.4%) versus 42/101 (41.6%), respectively (relative risk for clinical pregnancy 1.13, 95% CI 0.87-1.47; $P = 0.41$). However, moderate-to-severe OHSS occurred solely in the group that received low-dose hCG (9/105, 8.6%, 95% CI 3.2% to 13.9% vs 0/104, 95% CI 0 to 3.7, $P < 0.01$). **LIMITATIONS, REASONS FOR CAUTION:** The sample size calculation was based on a 19% absolute difference in terms of clinical pregnancy rates, therefore smaller differences, as observed in the trial, cannot be reliably excluded as non-significant. **WIDER IMPLICATIONS OF THE FINDINGS:** This study offers the first comparative analysis of two common strategies applied to women performing IVF/ICSI with a high risk to develop OHSS. While pregnancy rates did not vary significantly, a fresh embryo transfer with intensified luteal phase support may still not avoid the risk of moderate-to-severe OHSS and serious consideration should be made before recommending it as a routine first-line treatment. Future trials may allow us to confirm these findings. **STUDY FUNDING/COMPETING INTEREST(S):** The authors have no conflicts of interest to disclose. No external funding was obtained for this study. **TRIAL REGISTRATION NUMBER:** ClinicalTrials.gov identifier NCT02148393.**TRIAL REGISTRATION DATE:** 28 May 2014. **DATE OF FIRST PATIENT'S ENROLMENT:** 30 May 2014.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 6.918 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology; Reproductive Biology
Posición: Obstetrics & Gynecology 6/83; Reproductive Biology 3/30

Serra B, Mendoza M, **Scazzocchio E**, **Meler E**, Nolla M, Sabrià E, **Rodríguez I**, Carreras E.
A new model for screening for early-onset preeclampsia.
Am J Obstet Gynecol. 2020 Jun;222(6):608.e1-608.e18. doi: 10.1016/j.ajog.2020.01.020. Epub 2020 Jan 21.

BACKGROUND: Early identification of women with an increased risk for preeclampsia is of utmost importance to minimize adverse perinatal events. Models developed until now (mainly multiparametric algorithms) are thought to be overfitted to the derivation population, which may affect their reliability when applied to other populations. Options allowing adaptation to a variety of populations are needed. **OBJECTIVE:** The objective of the study was to assess the performance of a first-trimester multivariate Gaussian distribution model including maternal characteristics and biophysical/biochemical parameters for screening of early-onset preeclampsia (delivery <34 weeks of gestation) in a routine care low-risk setting. **STUDY DESIGN:** Early-onset preeclampsia screening was undertaken in a prospective cohort of singleton pregnancies undergoing routine first-trimester screening (8 weeks 0/7 days to 13 weeks 6/7 days of gestation), mainly using a 2-step scheme, at 2 hospitals from March 2014 to September 2017. A multivariate Gaussian distribution model including maternal characteristics (a priori risk), serum pregnancy-associated plasma protein-A and placental growth factor assessed at 8 weeks 0/7 days to 13 weeks 6/7 days and mean arterial pressure and uterine artery pulsatility index measured at 11.0-13.6 weeks was used. **RESULTS:** A total of 7908 pregnancies underwent examination, of which 6893 were included in the analysis. Incidence of global preeclampsia was 2.3% (n = 161), while of early-onset preeclampsia was 0.2% (n = 17). The combination of maternal characteristics, biophysical parameters, and placental growth factor showed the best detection rate, which was 59% for a 5% false-positive rate and 94% for a 10% false-positive rate (area under the curve, 0.96, 95% confidence interval, 0.94-0.98). The addition of placental growth factor to biophysical markers significantly improved the detection rate from 59% to 94%. **CONCLUSION:** The multivariate Gaussian distribution model including maternal factors, early placental growth factor determination (at 8 weeks 0/7 days to 13 weeks 6/7 days), and biophysical variables (mean arterial pressure and uterine artery pulsatility index) at 11 weeks 0/7 days to 13 weeks 6/7 days is a feasible tool for early-onset preeclampsia screening in the routine care setting. Performance of this model should be compared with predicting models based on regression analysis.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 8.661 **Quartil:** 1 **Categoria:** Obstetrics & Gynecology **Posición:** 2/83

Stormlund S, Sopa N, Zedeler A, Bogstad J, Prætorius L, Nielsen HS, Kitlinski ML, Skouby SO, Mikkelsen AL, Spangmose AL, Jeppesen JV, Khatibi A, la Cour Freiesleben N, Ziebe S, **Polyzos NP**, Bergh C, Humaidan P, Andersen AN, Løssl K, Pinborg A.
Freeze-all versus fresh blastocyst transfer strategy during in vitro fertilisation in women with regular menstrual cycles: multicentre randomised controlled trial.
BMJ. 2020 Aug 5;370:m2519. doi: 10.1136/bmj.m2519.

OBJECTIVE: To compare the ongoing pregnancy rate between a freeze-all strategy and a fresh transfer strategy in assisted reproductive technology treatment. **DESIGN:** Multicentre, randomised controlled superiority trial.

SETTING: Outpatient fertility clinics at eight public hospitals in Denmark, Sweden, and Spain. **PARTICIPANTS:** 460 women aged 18-39 years with regular menstrual cycles starting their first, second, or third treatment cycle of in vitro fertilisation or intracytoplasmic sperm injection. **INTERVENTIONS:** Women were randomised at baseline on cycle day 2 or 3 to one of two treatment groups: the freeze-all group (elective freezing of all embryos) who received gonadotropin releasing hormone agonist triggering and single frozen-thawed blastocyst transfer in a subsequent modified natural cycle; or the fresh transfer group who received human chorionic gonadotropin triggering and single blastocyst transfer in the fresh cycle. Women in the fresh transfer group with more than 18 follicles larger than 11 mm on the day of triggering had elective freezing of all embryos and postponement of transfer as a safety measure. **MAIN OUTCOME MEASURES:** The primary outcome was the ongoing pregnancy rate defined as a detectable fetal heart beat after eight weeks of gestation. Secondary outcomes were live birth rate, positive human chorionic gonadotropin rate, time to pregnancy, and pregnancy related, obstetric, and neonatal complications. The primary analysis was performed according to the intention-to-treat principle. **RESULTS:** Ongoing pregnancy rate did not differ significantly between the freeze-all and fresh transfer groups (27.8% (62/223) v 29.6% (68/230); risk ratio 0.98, 95% confidence interval 0.87 to 1.10, P=0.76). Additionally, no significant difference was found in the live birth rate (27.4% (61/223) for the freeze-all group and 28.7% (66/230) for the fresh transfer group; risk ratio 0.98, 95% confidence interval 0.87 to 1.10, P=0.83). No significant differences between groups were observed for positive human chorionic gonadotropin rate or pregnancy loss, and none of the women had severe ovarian hyperstimulation syndrome; only one hospital admission related to this condition occurred in the fresh transfer group. The risks of pregnancy related, obstetric, and neonatal complications did not differ between the two groups except for a higher mean birth weight after frozen blastocyst transfer and an increased risk of prematurity after fresh blastocyst transfer. Time to pregnancy was longer in the freeze-all group. **CONCLUSIONS:** In women with regular menstrual cycles, a freeze-all strategy with gonadotropin releasing hormone agonist triggering for final oocyte maturation did not result in higher ongoing pregnancy and live birth rates than a fresh transfer strategy. The findings warrant caution in the indiscriminate application of a freeze-all strategy when no apparent risk of ovarian hyperstimulation syndrome is present.**TRIAL REGISTRATION:** Clinicaltrials.gov NCT02746562.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 39.890 **Quartil:** 1 **Categoria:** Medicine, General & Internal **Posición:** 5/167

PSIQUIATRIA Y PSICOLOGIA – PSICODEX SL

Anastasiadou D, Folkvord F, Brugnera A, Cañas Vinader L, SerranoTroncoso E, Carretero Jardí C, Linares Bertolin R, Muñoz Rodríguez R, Martínez Nuñez B, Graell Berna M, Torralbas-Ortega J, Torrent-Solà L, Puntí-Vidal J, Carrera Ferrer M, Muñoz Domenjó A, Diaz Marsa M, **Gunnard K**, Cusido J, Arcal Cunillera J, Lupiañez-Villanueva F.

An mHealth intervention for the treatment of patients with an eating disorder: A multicenter randomized controlled trial.

Int J Eat Disord. 2020 Jul;53(7):1120-1131. doi: 10.1002/eat.23286. Epub 2020 May 8.

OBJECTIVE: The current multicentre randomized controlled trial assessed the clinical efficacy of a combined mHealth intervention for eating disorders (EDs) based on cognitive behavioral therapy (CBT). **METHOD:** A total of 106 ED patients from eight different public and private mental health services in Spain were randomly assigned to two parallel groups. Patients of the experimental group (N = 53) received standard face-to-face CBT plus a mobile intervention through an application called "TCApp," which provides self-monitoring and an online

chat with the therapist. The control group (N = 53) received standard face-to-face CBT only. Patients completed self-report questionnaires on ED symptomatology, anxiety, depression, and quality of life, before and after treatment. **RESULTS:** Significant reductions in primary and secondary outcomes were observed for participants of both groups, with no differences between groups. Results also suggested that the frequency with which patients attended their referral mental health institution after the intervention was lower for patients in the experimental group than for those in the control group. **DISCUSSION:** The current study showed that CBT can help to reduce symptoms relating to ED, regardless of whether its delivery includes online components in addition to traditional face-to-face treatment. Besides, the additional component offered by the TCApp does not appear to be promising from a purely therapeutic perspective but perhaps as a cost-effective tool, reducing thus the costs and time burden associated with weekly visits to health professionals.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 4.861 **Quartil:** 1 **Categoria:** Psychology; Psychiatry; Nutrition & Dietetics
Posición: Psychology 9/77; Psychiatry 39/156; Nutrition & Dietetics 27/88 (Q2)

REUMATOLOGIA

Gomez-Centeno A, **Ramentol M**, **Gonzalez MJ**, **Alegre C.**
Coenzyme Q10, tryptophan and magnesium: a nutritional supplement in the treatment of fibromyalgia symptoms.
Ann Rheum Dis, 2020, 79(SUPPL 1), 1773-1774. doi: 10.1136/annrheumdis-2020-eular.5531

Background: Fibromyalgia syndrome (FMS) is a multidimensional chronic disorder characterized by widespread musculoskeletal pain, fatigue, sleep disturbances, cognitive dysfunction, depressive episodes, and anxiety [1]. Management of FMS remains challenging and treatment strategies are required to be multidisciplinary. Among nonpharmacological therapies, nutrition is a promising tool, since oxidative stress and/or an imbalance of nutritional components have demonstrated to play a critical role in the pathophysiology of FMS [2,3]. **Objectives:** We conducted a pilot study (FATMIA Study) to investigate the efficacy and tolerability of a dietary supplementation (NSC) containing coenzyme Q10, magnesium and tryptophan in FMS patients. **Methods:** This was a prospective, double-blind, placebo-controlled, two-period pilot study conducted between March 2017-October 2017. All patients underwent two 3-month treatments with NSC and placebo, with a 1-month washout period in between. To evaluate the most prevalent clinical manifestations of FMS, the Combined Index of Severity of Fibromyalgia questionnaire (ICAF) [4] was used. A sample of 23 patients aged from 18 to 80 years, with a formal diagnosis of fibromyalgia of at least two years, was included in the study. **Results:** Twenty patients completed the study, while three (13.0%) dropped out because they failed to attend all clinical visits (n=2) or presented an adverse event (n=1). Participant demographics are presented in Table 1. All participants were female with a mean age of 51.9 (7.2) years. Depression and anxiety were reported in 65.0% (13/20) and 30.0% (6/20) of cases, respectively. All patients were under pharmacological treatment for FMS symptoms. The most commonly reported medications were paracetamol (60.0%, 12/20), selective serotonin reuptake inhibitors(45.0%, 9/20), and tramadol (40.0%, 8/20). Physical symptoms such as fatigue, functional capacity, pain and sleep quality improved at the end of the study treatment, whereas they mainly declined after placebo treatment. However, no statistically significant differences were found among the studied variables. Total ICAF score improved after NSC treatment, and declined after placebo treatment. NSC treatment was well tolerated, with a low incidence of adverse events (5.0%, 1/20). **Conclusion:** The results of this study constitute the first investigation of the effect of a nutritional supplement containing CoQ10, magnesium and tryptophan on FMS. Although the results should be confirmed in larger studies, they suggest that NSC treatment for 3 months, in

addition to pharmacological therapy, may be of interest in the management of FMS. This treatment appeared to primarily improve physical symptoms, such as fatigue and pain, with low risk of adverse events.

Indexado en: PubMed/WOS/JCR /JCI/ Science Citation Index Expanded (SCIE)
Factor Impacto: 19.103 **Quartil:** 1 **Categoria:** Rheumatology **Posición:** 2/34

Índice-H HUDQ Global

78
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Publications

2,191
Total

From 1990 to 2020

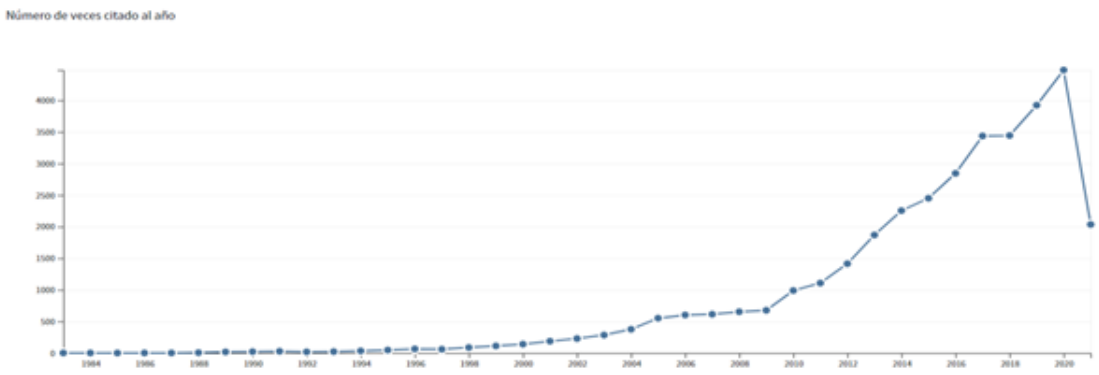
Citing Articles

29,471 Analyze
Total
28,877 Analyze
Without self-citations

Times Cited

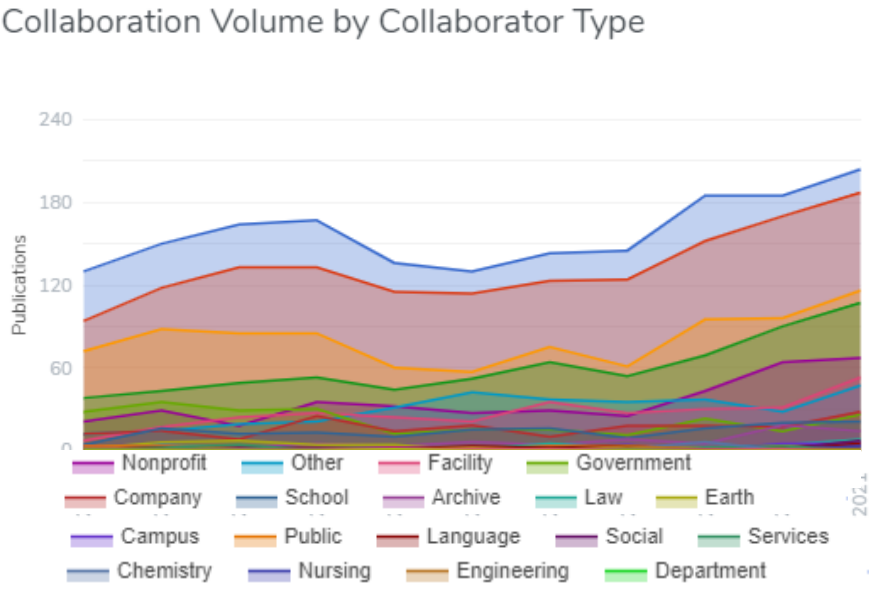
35,073
Total
33,593
Without self-citations

Times Cited and Publications Over Time



***Fuente:** 2019 Journal Citation Reports (Clarivate, 2020)**

Colaboraciones Internacionales



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Publicaciones Científicas 2020

26

Artículos en el 1r Decil

Fuente: Journal Citation Reports, JCR: 2021

Publications

131

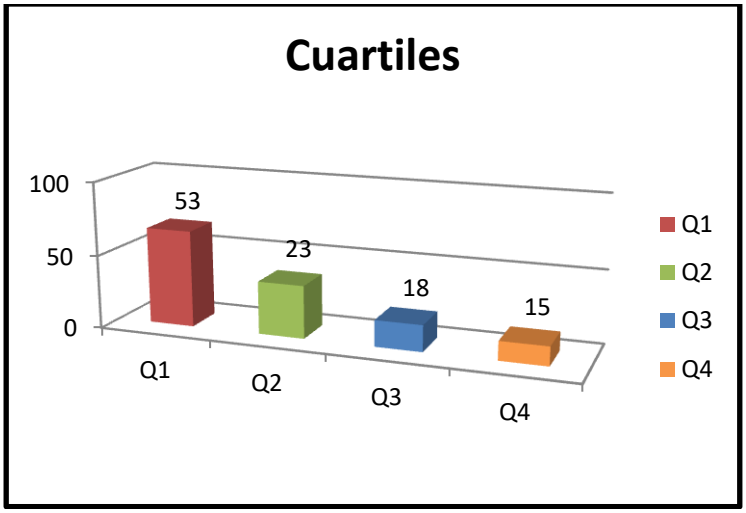
Total

From 2020

***Fuente:** 2019 Journal Citation Reports (Clarivate, 2020)*

Cuartiles

Cuartiles: Herramienta estadística que sirve para administrar grupos de datos previamente ordenados. Son tres valores de la variable, que dividen un conjunto de datos ordenados segun la categoria a la que pertenecen los artículos en la Web of Science en cuatro partes iguales segun el % de los datos coincidiendo con la mediana.



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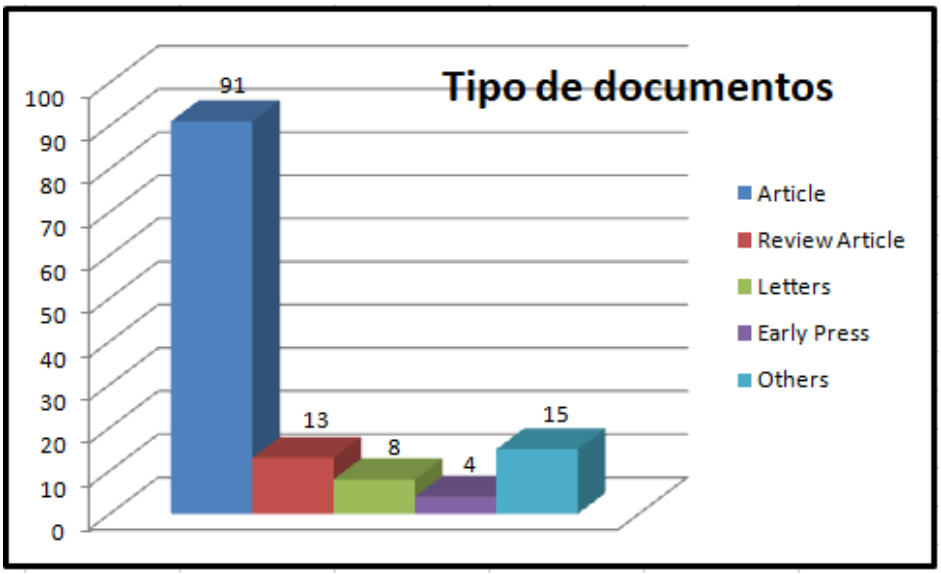
Tipo de documentos



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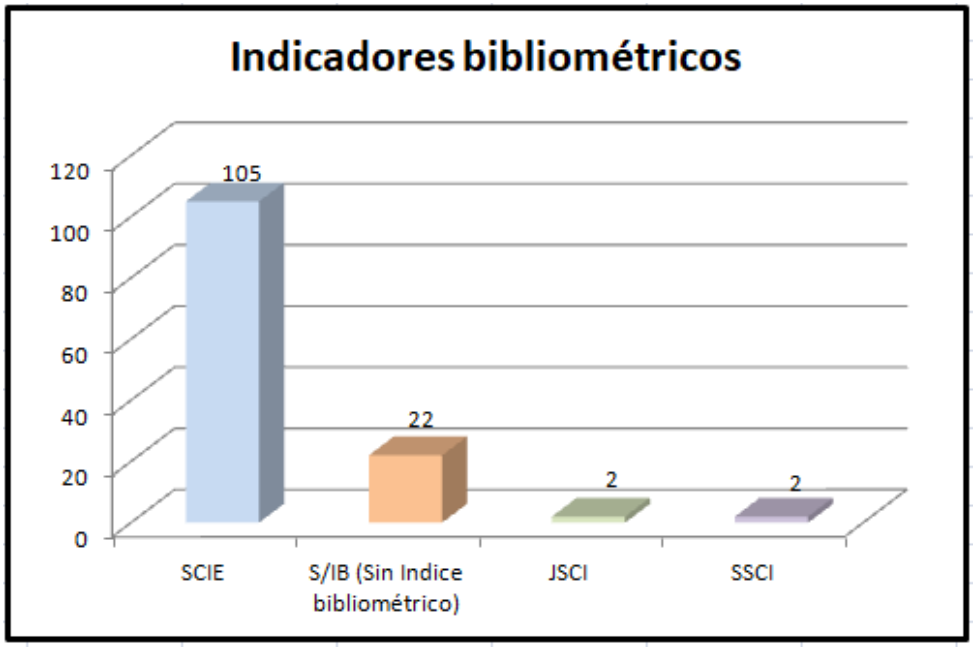
Indicadores bibliométricos



***Fuente:** 2019 Journal Citation Reports (Clarivate, 2020)