

2022

**Biblioteca
Hospital Universitari Dexeus
Grupo Quirónsalud**



Foto : Dani Olea



- Fuentes e Indicadores bibliométricos

- Documentos indexados en: WOS/
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- 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 citas 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 donde 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 Cuartiles 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/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

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 2021, no obstante en algunos de los indicadores, nos centraremos exclusivamente en el año 2021 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 filiación 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) 2021**, estos valores están disponibles el mes de julio del 2022.

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 2021**. 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**.

ANATOMIA PATOLOGICA

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: S/FI

Factor impacto medio x artículo: S/FI

Tresserra F, Elizalde J, Ferre B, Gómez-Benlloch A, Martínez-Lanao MÁ, López R.

Adenoma sebáceo conjuntival aislado asociado a endoftalmitis aguda.

Rev Esp Patol. 2022 Jan-Mar;55(1):68-72. doi: 10.1016/j.patol.2019.01.006. Epub 2019 Mar 16.

Sebaceous adenoma of the conjunctiva is a very rare lesion of uncertain origin. It is usually associated with Muir-Torre syndrome in which neoplasms are also found in other parts of the body. We present the case of a 71-year-old man without a previous or family history of neoplasia, who presented with severe inflammation and an infection in his right eye associated with a tumor of the conjunctiva near the caruncle. The lesion was excised and histopathology revealed a sebaceous adenoma. Microsatellite instability was not observed immunohistochemically. He remains alive and well.

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Indexado en: PubMed

ANESTESIOLOGIA

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: 0.48

Factor impacto medio x artículo: 0.48

Cáncer Requeno G, Farreras Margenat A, Homs Riera M, Boliart de San Félix Y.

Diaphragmatic fracture vs. phrenic paralysis after debulking surgery.

Rev Esp Anesthesiol Reanim (Engl Ed). 2022 Apr;69(4):253-254. doi: 10.1016/j.redare.2021.03.014. Epub 2022 May 7.

Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.48

JCR Categoría: Anesthesiology

Posición: 31/62

Q2

Francisco-Pascual J, Rivas-Gándara N, Bach-Oller M, Badia-Molins C, Maymi-Ballesteros M, Benito B, Pérez-Rodon J, Santos-Ortega A, Sambola-Ayala A, Roca-Luque I, Cantalapiedra-Romero J, Rodríguez-Silva J, Pascual-González G, **Moya-Mitjans À**, Ferreira-González I.

Sex-Related Differences in Patients With Unexplained Syncope and Bundle Branch Block: Lower Risk of AV Block and Lesser Need for Cardiac Pacing in Women.

Front Cardiovasc Med. 2022 Feb 25;9:838473. doi: 10.3389/fcvm.2022.838473. eCollection 2022.

OBJECTIVE: To analyze if there are sex-related differences in patients with unexplained syncope and bundle branch block (BBB). **BACKGROUND:** Despite increasing awareness that sex is a major determinant of the incidence, etiology, and the outcomes of different arrhythmias, no studies have examined differences in presentation and outcomes between men and women with syncope and BBB. **METHODS:** Cohort study of consecutive patients with unexplained syncope and BBB was included from January 2010 to January 2021 with a median follow-up time of 3.4 years [interquartile range (IQR) 1.7-6.0 years]. They were evaluated by a stepwise workup protocol based on electrophysiological study (EPS) and long-term follow-up with an implantable cardiac monitor (ICM). **RESULTS:** Of the 443 patients included in the study, 165 (37.2%) were women. Compared with men, women had less diabetes (25.5 vs. 39.9%, $p = 0.002$) and less history of ischemic heart disease (IHD; 13.3 vs. 25.9%, $p = 0.002$). Left bundle branch block (LBBB) was more frequent in women (55.2 vs. 27.7%, $p < 0.001$) while right bundle branch block (RBBB) was more frequent in men (41.5 vs. 67.7%, $p < 0.001$). His to ventricle (HV) interval in the EPS was shorter in women (58 ms [IQR 52-71] vs. 60 ms [IQR 52-73], $p = 0.035$) and less women had an HV interval longer than 70 ms (28.5 vs. 38.1%, $p = 0.039$), however, EPS and ICM offered a similar diagnostic yield in both sexes (40.6 vs. 48.9% and 48.4% vs. 51.1%, respectively). Women had a lower risk of developing atrioventricular block (AVB) (adjusted odds ratio [OR] 0.44-95% CI 0.26-0.74, $p = 0.002$) and of requiring permanent pacemaker implantation (adjusted hazard ratio [HR] 0.72-95% CI: 0.52-0.99, $p = 0.046$). The mortality rate was lower in women (4.5 per 100 person-years [95% CI 3.1-6.4 per 100 person-years] vs. 7.3 per 100 person-years [95% CI 5.9-9.1 per 100 person-years]). **CONCLUSIONS:** Compared to men, women with unexplained syncope and BBB have a lower risk of AVB and of requiring cardiac pacing. A stepwise diagnostic approach has a similar diagnostic yield in both sexes, and it seems appropriate to guide the treatment and avoid unnecessary pacemaker implantation, especially in women.

Copyright © 2022 Francisco-Pascual, Rivas-Gándara, Bach-Oller, Badia-Molins, Maymi-Ballesteros, Benito, Pérez-Rodon, Santos-Ortega, Sambola-Ayala, Roca-Luque, Cantalapiedra-Romero, Rodríguez-Silva, Pascual-González, Moya-Mitjans and Ferreira-González.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 5.846

JCR Categoría: Cardiac & Cardiovascular Systems

Posición: 43/143

Q2

DIGESTIVO

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: 3.479

Factor impacto medio x artículo: 3.479

Espinet-Coll E, Díaz-Galán P, Nebreda-Durán J, Gómez-Valero JA, Vila-Lolo C, Bautista-Altamirano C, Bargalló-García A, Galvao-Neto M, Muñoz-Navas M, Bargalló-Carulla D.

Persistence of Sutures and Gastric Reduction After Endoscopic Sleeve Gastroplasty: Radiological and Endoscopic Assessment.

Obes Surg. 2022 Jun;32(6):1969-1979. doi: 10.1007/s11695-022-06039-3

BACKGROUND: Endoscopic sleeve gastroplasty (ESG) is an effective medium-term procedure for obesity treatment. There are no consistent studies confirming persistence of maintained gastric tubular configuration. We determined sleeve duration, gastric reduction degree, and suture persistence at 12-month follow-up. **PATIENTS AND METHODS:** This is a prospective, single-center study, including patients with obesity undergoing ESG with at least 1-year follow-up, who underwent the following: (1) Barium X-ray study (BS) prior and at 6 months, assessing degree of gastric reduction (severe, moderate, or mild), and (2) gastroscopy at 12 months, accounting the number of persistent sutures (tense, lax, or absent). Secondary outcomes were weight loss data and procedure safety profile. **RESULTS:** Thirty-eight patients (30 women), median age of 47.0 [40.0-51.0] years, and average baseline BMI of 37.6 [35.5-41.5] kg/m² were included. Median %TWL of 17.1% [16.1-22.3%] with TWL > 10% in 94.7% of patients was obtained at 1 year. No major AEs were observed. Six months BS was performed on 30 patients: 12 (40.0%), 14 (46.7%), and 4 (13.3%) patients showed severe, moderate, and mild gastric reduction, respectively. Twelve months gastroscopy was performed on 22 patients with 83.64% of sutures persisting (92 of 110, mean 4.2 of 5.0 sutures/patient) and 70.9% with adequate tension. We found intact sutures in 12 patients (54.5%), and 10 patients (45.5%) had some suture detached (average 1.8, r = 1-3). There were no differences in %TWL according to BS reduction ($p = 0.662$) or number of persistent sutures ($p = 0.678$). **CONCLUSIONS:** ESG is an effective and safe weight loss strategy at 12-month follow-up with persistence of most sutures and maintenance of notable gastric reduction and remodeling.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.479

JCR Categoría: Surgery

Posición: 57/211

Q2

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

Nº Artículos indexados: 17

Journal Impact Factor™ – 2021:

Factor impacto medio x artículo:

Alabau-Rodriguez S, Romero-Larrauri P, Soldado F.

Glenohumeral abduction contractures after residual neonatal brachial plexus injury.

J Hand Surg Eur Vol. 2022 Mar;47(3):243-247. doi: 10.1177/17531934211045509. Epub 2021 Sep 15.

Comment in

J Hand Surg Eur Vol. 2022 Mar;47(3):341-344.

Glenohumeral abduction contractures are common in patients with neonatal brachial plexus injury, but little has been previously published about them. We conducted a retrospective analysis of data prospectively collected from 205 consecutive children (108 female) of mean age 9.6 years with neonatal brachial plexus injury (C5-C6, 58%; C5-C7, 29%; C5-T1, 14%). Most children (69%) showed a glenohumeral abduction contracture, it being more common in those with upper neonatal brachial plexus injury. Level of evidence: III.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.206

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 53/86; Surgery 124/211

Q3

Barrera-Ochoa S, Sapage R, Alabau-Rodriguez S, Mendez-Sanchez G, Mir-Bullo X, Soldado F.

Vascularized Ulnar Periosteal Pedicled Flap for Upper Extremity Reconstruction in Adults: A Prospective Case Series of 11 Patients.

J Hand Surg Am. 2022 Jan;47(1):86.e1-86.e11. doi: 10.1016/j.jhsa.2021.02.027. Epub 2021 May 18.

PURPOSE: We hypothesized that a vascularized ulnar periosteal pedicled flap (VUPPF) is a versatile graft applicable in adult patients that yields good outcomes and is a reliable alternative to other vascularized bone grafts to reduce both the technical demands and donor site morbidity of other options. **METHODS:** We reviewed 11 adult patients who underwent surgical treatment of forearm atrophic nonunion with a VUPPF. Patients' demographics, outcomes (measured by pain on the visual analog scale; Quick Disabilities of the Arm, Shoulder, and Hand score; range of motion; and grip strength), and associated complications were reported. **RESULTS:** Of the 11 patients, 5 had previous surgery in an attempt to treat the nonunion with an autologous cancellous bone graft from the iliac crest or olecranon. The average time from nonunion until the VUPPF was 9 months (SD, ± 3 months; range, 6-14 months). The mean visual analog scale score improved considerably after surgery (8.7 vs 0.6), and considerable improvement was also noted in the Quick Disabilities of the Arm, Shoulder, and Hand score (50 vs 6). A notable improvement was seen in grip strength after surgery. Pronation/supination also improved considerably between the preoperative assessment and the final postoperative follow-up. **CONCLUSIONS:** A vascularized ulnar periosteal pedicled flap seems to be a useful and versatile option for a variety of bone union failures of the upper extremity in adults, either at initial presentation or as a salvage technique. **TYPE OF STUDY/LEVEL OF EVIDENCE:** Therapeutic IV.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.342

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 50/86; Surgery 117/211

Q3

Baums MH, Aquilina J, Pérez-Prieto D, Sleiman O, Geropoulos G, Totlis T.

Risk analysis of periprosthetic knee joint infection (PJI) in total knee arthroplasty after preoperative corticosteroid injection: a systematic review : A study performed by the Early-Osteoarthritis group of ESSKA-European Knee Associates section.

Arch Orthop Trauma Surg. 2022 Jul 12. doi: 10.1007/s00402-022-04532-z. Online ahead of print.

PURPOSE: Intra-articular corticosteroid injection is widely used for symptomatic relief of knee osteoarthritis. However, if pain is not improved which consequences a total knee arthroplasty (TKA), there is a potential risk of post-operative periprosthetic joint infection (PJI). The aim of this study is to investigate whether the use of preoperative intra-articular corticosteroid injection increases the risk of PJI and to investigate a time frame in which the risk of subsequent infection is significantly increased. **METHODS:** A systematic search was performed in PubMed (Medline), Scopus, and the Cochrane Library. Inclusion criteria were original studies investigating the rate of PJI in patients receiving pre-operative intra-articular corticosteroid injection compared to controls. **RESULTS:** A total of 380 unique articles were screened. Six studies met the inclusion criteria with 255,627 patients in total. Overall, no statistical significance was observed in the intra-articular infection rate in corticosteroid compared to controls groups. However, intra-articular corticosteroid injections within 3 months prior to TKA were associated with a significantly increased risk of infection (OR: 1.52, 95% CI 1.37-1.67, $p < 0.01$); this was not observed in the 6 month period (OR: 1.05, 95% CI 0.80-1.39, $p = 0.72$). **CONCLUSIONS:** Performing an intra-articular corticosteroid injection within 3 months prior to TKA is associated with a significantly increased risk of PJI. The current evidence supports the safe use of intra-articular corticosteroid injection more than 6 months before TKA. However, additional studies are needed to clarify the risk of PJI after TKA implantation between 3 and 6 months after the last corticoid injection. **LEVEL OF EVIDENCE:** IV.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.928

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 33/86; Surgery 78/211

Q2

Campillo-Recio D, Comas-Aguilar M, Ibáñez M, Maldonado-Sotoca Y, Albertí-Fitó G.

Percutaneous Achilles Tendon Repair with Absorbable Suture: outcomes and complications.

[Article in English, Spanish]

Rev Esp Cir Ortop Traumatol. 2022 Jul 6:S1888-4415(22)00158-8. doi: 10.1016/j.recot.2022.06.008. Online ahead of print.

BACKGROUND AND OBJECTIVE: The purpose of this study is to evaluate the clinical outcomes and complications of percutaneous Achilles tendon repair with absorbable sutures. **MATERIAL AND METHODS:** Prospective cohort study including 52 patients treated for Achilles tendon ruptures (January 2016-March 2019). **INCLUSION CRITERIA:** ≥ 18 years of age, non-insertional Achilles tendon ruptures. Diagnosis based on clinical criteria, confirmed by ultrasonography. Assessment using Visual Analogue Scale (VAS), Achilles Tendon Rupture Score (ATRS) and ultrasound. Re-rupture rate and postoperative complications were collected. **RESULTS:** VAS scoring (SD) at 1, 3, 6 and 12 months follow-up (FU) were 2.63 (0.83), 1.79 (1.25), 0.69 (1.09) and 0.08 (0.39) respectively. Mean (SD) ATRS score was 92.45 points at 6 months (6.27) and 94,04 points at 12 months FU (4.59). 3 re-ruptures (5.77%) occurred with a mean time between surgery and re-rupture of 108.75 days (SD 28.4), all of them within 4-month FU. No ruptures at the time to return to sports activity. 13 complications (25%) (3 re-ruptures, 1 superficial wound infection and 9 transitory sural nerve injuries). **CONCLUSIONS:** Percutaneous Achilles tendon repair with absorbable sutures in patients with acute Achilles tendon ruptures has shown good functional results but with a high incidence of complications. Although most complications were transitory sural nerve symptoms, these would be avoided with conservative treatment. Conservative treatment associated with an early weightbearing rehabilitation protocol should be considered a viable option for patients with Achilles tendon ruptures, specially in cooperative young patients.

Indexado en: PubMed

Carrozzo A, Saithna A, Ferreira A, Guy S, Chadli L, Monaco E, **Pérez-Prieto D**, Bohu Y, Vieira TD, Sonnery-Cottet B. **Presoaking ACL Grafts in Vancomycin Decreases the Frequency of Postoperative Septic Arthritis: A Cohort Study of 29,659 Patients, Systematic Review, and Meta-analysis From the SANTI Study Group.**

Orthop J Sports Med. 2022 Feb 7;10(2):23259671211073928. doi: 10.1177/23259671211073928. eCollection 2022 Feb.

BACKGROUND: Presoaking anterior cruciate ligament (ACL) grafts in vancomycin has been reported to reduce the occurrence of septic arthritis (SA). However, strong recommendations for its universal use have been precluded by concerns regarding the fragility of previous meta-analyses. **PURPOSE:** The primary objective was to investigate whether presoaking ACL grafts in vancomycin was associated with a reduction in the rate of SA in a large series of patients. The secondary objective was to perform an updated systematic review and meta-analysis to determine the efficacy of vancomycin in reducing the rate of SA. **STUDY DESIGN:** Cohort study and systematic review; Level of evidence, 3. **METHODS:** A retrospective analysis of patients who underwent primary ACL reconstruction (ACLR) at our institution was undertaken. Rates of postoperative SA were determined and analyzed according to whether patients had received grafts presoaked in vancomycin. A systematic review of the literature and meta-analysis was performed. Odds ratios (ORs) for the risk of SA were calculated according to the inverse variance approach. Results were presented using forest plots, funnel plots, and the fragility index. **RESULTS:** A total of 5300 patients underwent primary ACLR during the study period. The rate of SA was 0.34% (11/3228) in the control group and 0.05% (1/2072) in the presoaked group. There was a 5-fold greater risk of SA in patients who did not receive grafts presoaked in vancomycin (OR, 5.13 [95% CI, 1.16-48.30]; $P = .04$). Overall, 11 studies were included in the systematic review (29,659 ACLR procedures). The meta-analysis demonstrated a significantly greater risk of SA in those patients who did not receive grafts presoaked in vancomycin (OR, 14.39 [95% CI, 5.90-35.10]; fragility index = 23). This finding held true for the subpopulation receiving hamstring tendon grafts (fragility index = 16), but only a trend was demonstrated for bone-patellar tendon-bone grafts. **CONCLUSION:** The meta-analysis demonstrated that presoaking ACL grafts in vancomycin was associated with significant reductions in the rates of SA when all graft types were analyzed together. This finding held true specifically for hamstring tendon autografts. The fragility index of these findings allows for a strong recommendation for the universal use of vancomycin presoaking. However, it should be noted that only a trend toward reduced SA rates was demonstrated with presoaking bone-patellar tendon-bone autografts in vancomycin.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.401 JCR Categoría: Orthopedics; Sport Sciences Posición: Orthopedics 27/86; Sport Sciences 36/87 **Q2**

Cavanilles-Walker JM, Montserrat DR, Jerez XP, González MI, **Garcés MTU**, Rios Guillermo J, Collsamata PC, **Palou EC**, Andrés RP.

Sagittal imbalance influences outcome of vertebroplasty in patients with osteoporotic vertebral compression fracture.

[Article in English, Spanish]

Rev Esp Cir Ortop Traumatol. 2022 Jul 14:S1888-4415(22)00187-4. doi: 10.1016/j.recot.2022.07.004. Online ahead of print.

BACKGROUND AND OBJECTIVES: The correlation between sagittal balance of the spine and clinical outcome after vertebroplasty (VP) in patients with osteoporotic vertebral compression fractures (OVCF) is poorly

investigated. We analysed the clinical outcome of patients with OVCF undergoing VP taking into account sagittal balance. **METHODS:** The primary endpoint was the change in axial back pain; disability and health-related quality of life using VAS, ODI and SF-36 respectively in correlation to the parameters that define sagittal balance (SVA). Radiographic assessment included full spine standing lateral films. Imaging and clinical data were collected pre and post procedure at 1, 3 and 12 months. **RESULTS:** 51 patients were included presenting a total of 113 OVCF. 30 patients (60.7%) had multiple OVCF. Comparing the evolution of VAS and ODI throughout the follow-up it does not seem that there are significant differences in their behaviour between the SVA > 50 mm. and the SVA < 50 mm. groups ($p > 0.05$). On the contrary, preVP SF-36 scores showed worst results in the SVA > 50 mm. group in the physical functioning section (PF) ($p < 0.05$) and in the physical component score (PCS) ($p < 0.05$). These differences were maintained until 3 months of follow-up in the case of the PCS and until the end of follow-up in the case of the PF ($p < 0.05$). **CONCLUSIONS:** Patients with a SVA > 50 mm. showed a slower recovery of their quality of life after VP for OVCF, but without significant differences with respect to pain or disability, when compared with patients with SVA < 50 mm.

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Indexado en: PubMed

Clippinger BB, Plucknette BF, Soldado F, Turvey BR, **Barrera-Ochoa S**, Kozin SH, Zlotolow DA.
The One-Bone Forearm in Children: Surgical Technique and a Retrospective Review of Outcomes.
J Hand Surg Am. 2022 Feb;47(2):189.e1-189.e9. doi: 10.1016/j.jhsa.2021.04.009. Epub 2021 Jun 8.

PURPOSE: The purpose of this study was to describe a technique of end-to-end rigid fixation of the distal radius to the proximal ulna. The shortening and radioulnar overlap in this technique yield a high union rate, large corrections, and few complications. **METHODS:** This retrospective chart review from 2 centers was undertaken in 39 patients (40 forearms) who underwent one-bone forearm operations between 2005 and 2019. There were 25 male and 14 female patients, with a mean age at surgery of 9.7 years (range 3 to 19 years; SD, 4.5 years). The diagnoses included brachial plexus birth injury, spinal cord injury, arthrogryposis multiplex congenita, cerebral palsy, ulnar deficiency with focal indentation, multiple hereditary exostosis, acute flaccid myelitis, and tumor. **RESULTS:** The average follow-up was 33.5 months (1.2-110.1 months; SD, 27.1 months). The 36 forearms in supination had an average supination contracture of 93° (range, 15° to 120°; SD, 15.4°). The 4 pronated arms had an average pronation contracture of 80° (range, 50° to 120°; SD, 29.2°). The average postoperative position was 22.8° of pronation (range, -15° to 45°; SD, 12.9°). The average correction obtained with our technique was 113° (range, 20° to 145°; SD, 22.9°). Radiographic union was demonstrated in 32 (80%) of the one-bone forearms by 10 weeks, 39 (97.5%) by 16 weeks, and 40 (100%) by 24 weeks. One patient had peri-implant fractures prior to union. No forearms required reoperation for nonunion. **CONCLUSIONS:** One-bone forearm performed with this technique allows reliable healing and a large degree of correction. **TYPE OF STUDY/LEVEL OF EVIDENCE:** Therapeutic IV.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.342

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 50/86; Surgery 117/211

Q3

Costa GG, Perelli S, Grassi A, Russo A, Zaffagnini S, Monllau JC.
Minimizing the risk of graft failure after anterior cruciate ligament reconstruction in athletes. A narrative review of the current evidence.
J Exp Orthop. 2022 Mar 15;9(1):26. doi: 10.1186/s40634-022-00461-3.

Anterior cruciate ligament (ACL) tear is one of the most common sport-related injuries and the request for ACL reconstructions is increasing nowadays. Unfortunately, ACL graft failures are reported in up to 34.2% in athletes, representing a traumatic and career-threatening event. It can be convenient to understand the various risk factors for ACL failure, in order to properly inform the patients about the expected outcomes and to minimize the chance of poor results. In literature, a multitude of studies have been performed on the failure risks after ACL reconstruction, but the huge amount of data may generate much confusion. The aim of this review is to resume the data collected from literature on the risk of graft failure after ACL reconstruction in athletes, focusing on the following three key points: individuate the predisposing factors to ACL reconstruction failure, analyze surgical aspects which may have significant impact on outcomes, highlight the current criteria regarding safe return to sport after ACL reconstruction.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.71 **JCR Categoria:** Orthopedics; Surgery **Posición:** Orthopedics 55/127; Surgery 119/279

Q2

Floerkemeier T, Ezechieli M, Wirries N, Windhagen H, Ribas M, Budde S.

[Arthroscopic assisted mini-open arthrotomy for the treatment of the femoroacetabular impingement].

[Article in German; Abstract available in German from the publisher]

Oper Orthop Traumatol. 2022 Apr;34(2):117-128. doi: 10.1007/s00064-021-00755-2. Epub 2021 Dec 14.

OBJECTIVES: Treatment of pathologies of the central and peripheral compartment of the hip using arthroscopic assisted mini-open arthrotomy via the Smith-Petersen approach. **INDICATIONS:** Cam- and pincer-type femoroacetabular impingement (FAI), labral tear, loose bodies. **(RELATIVE) CONTRAINDICATIONS:** Osteoarthritis of the hip with Tönnis classification grade ≥ 2 . **SURGICAL TECHNIQUE:** After mini-open approach to the hip joint via direct anterior muscular gap, the anterior capsule is split with protection of the labrum. Decompression allows the joint to be inspected using an arthroscope. Depending on the intra-articular findings, additional procedures can be performed (e.g., curettage of the cartilage, microfracturing, matrix-induced autologous chondrocyte implantation [MACI]). Cases with pincer-type FAI or labral tear can also be addressed. After partial release, the cam-type FAI can be resected using a surgical burr. **POSTOPERATIVE MANAGEMENT:** Partial weightbearing for 2-6 weeks with 10-20 kg or half body weight using crutches depending on the intraoperative treatment. **RESULTS:** Radiological analysis of the pre- and postoperative X-rays (n = 69) prove that this surgical technique is suitable to address pathologies especially FAI syndromes. The α -angle according to Nötzli could be reduced from a mean preoperative value of 72.8° to 49.4° postoperative. In combined cam-type and Pincer-type FAI syndrome (n = 16), the lateral center-edge angle could be reduced from a mean preoperative value of 50.2° to 37.6° postoperatively. The clinical follow-up (n = 29) revealed good midterm outcomes after arthroscopic assisted mini-open arthrotomy (modified Harris Hip Score [mHHS] 84.8 points after 4.9 years [range 4.2-5.7; ± 0.43]).

Publisher: ZUSAMMENFASSUNG: **OPERATIONSZIEL:** Therapie von Pathologien des zentralen und peripheren Kompartiments des Hüftgelenks über eine arthroskopisch assistierte Mini-open-Arthrotomie via Smith-Petersen-Intervall. **INDIKATIONEN:** Femoroacetabuläres Impingement (FAI) Typ CAM und Typ Pincer, Labrumläsionen, lokale Knorpelläsionen, freie Gelenkkörper. **(RELATIVE) KONTRAINDIKATIONEN:** Koxarthrose mit einem Arthrosegrad nach Tönnis ≥ 2 . **OPERATIONSTECHNIK:** Nach einem minimal-invasiven direkt vorderen Zugang (Mini-open-Arthrotomie) zum Hüftgelenk erfolgt die Eröffnung der anterioren Gelenkkapsel unter Schonung des Labrums. Durch Distraction kann mit dem Arthroskop das Gelenk inspiziert werden. Je nach intraartikulärem Befund können weitere Maßnahmen (z. B. Knorpelkürettage, Mikrofrakturierung, MACI) erfolgen. Bei FAI-Syndrom Typ Pincer oder einer Labrumläsion können diese Pathologien problemlos adressiert werden. Nach partiellem Nachlassen der Distraction kann das Abtragen des FAI-Syndrom Typ CAM mit der Kugelkopfräse durchgeführt werden. **WEITERBEHANDLUNG:** Teilbelastung für 2 bis 6 Wochen mit 10–20 kg oder mit halbem

Körpergewicht an Unterarmgehilfen in Abhängigkeit vom intraoperativen Vorgehen. **ERGEBNISSE:** Die radiologische Analyse der prä- und postoperativen Röntgenbilder (n = 69), die aufgrund eines FAI-Syndroms operiert wurden, belegt, dass diese operative Technik gut geeignet ist, um pathologische Veränderungen zu adressieren. Der α -Winkel nach Nötzli konnte von durchschnittlich 72,8° präoperativ auf 49,4° postoperativ reduziert werden. Bei einem kombinierten FAI-Syndrom (n = 16) wurde der LCE-Winkel von präoperativ durchschnittlich 50,2° auf postoperativ 37,6° reduziert. Die klinische Nachuntersuchung (n = 29) zeigte gute mittelfristige Ergebnisse nach Behandlung des FAIs mittels arthroskopisch assistierter Mini-open-Arthrotomie (mHHS 84,8 Punkte nach 4,9 Jahren [4,2–5,7; $\pm 0,43$]).

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Indexado en: PubMed

Gelber PE, Ramírez-Bermejo E, Grau-Blanes A, Gonzalez-Osuna A, Fariñas O.

Computerized tomography scan evaluation after fresh osteochondral allograft transplantation of the knee correlates with clinical outcomes.

Int Orthop. 2022 Jul;46(7):1539-1545. doi: 10.1007/s00264-022-05373-6.

PURPOSE: To determine the correlation between the assessment computed tomography osteochondral allograft (ACTOCA) scoring system and clinical outcomes scores. The hypothesis was that the ACTOCA score would show sufficient correlation to support its use in clinical practice. **METHODS:** We prospectively collected data from all consecutive patients who underwent cartilage restitution with fresh osteochondral allograft (FOCA) transplantation for osteochondral lesions of the knee and had a minimum follow-up of two years. CT scans were performed at three, six and 24 months post-operatively. A musculoskeletal radiologist blinded to the patients' medical history evaluated the scans using the ACTOCA scoring system. Clinical outcomes collected preoperatively and at three, six and 24 months postoperatively were evaluated using the International Knee Documentation Committee (IKDC), Kujala, the Western Ontario Meniscal Evaluation Tool (WOMET), and the Tegner Activity Scale. **RESULTS:** The mean total ACTOCA score showed a statistically significant correlation with the clinical outcome. The correlation was optimal at 24 months. We found a high negative correlation with the IKDC, Kujala and Tegner (- 0.737; - 0.757, and - 0.781 respectively), and a moderate negative correlation with WOMET (- 0.566) ($p < 0.001$). IKDC, Kujala, WOMET, and Tegner scores showed a significant continuous improvement in all scores ($p < 0.001$). **CONCLUSION:** The mean total ACTOCA score showed a linear correlation with clinical results in IKDC, Kujala, WOMET, and Tegner scores, being the highest at 24 months post-surgery. This finding supports the use of ACTOCA to standardize CT scan reports following fresh osteochondral allograft transplantation in the knee.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.479

JCR Categoría: Orthopedics

Posición: 25/86

Q2

Lakhani K, Mimendia I, Porcel JA, **Martín-Domínguez LA**, Guerra-Farfán E, Barro V.

Direct anterior approach provides better functional outcomes when compared to direct lateral approach in hip hemiarthroplasty following femoral neck fracture.

Eur J Orthop Surg Traumatol. 2022 Jan;32(1):137-143. doi: 10.1007/s00590-021-02941-1. Epub 2021 Mar 24.

PURPOSE: This study aims to compare the differences between direct anterior approach (DAA) and direct lateral approach (DLA) in hip hemiarthroplasty (HHA) after displaced femoral neck fracture (FNF) in early functional outcome, hospital length of stay, morbidity and mortality rates. **METHODS:** This non-interventional retrospective study, carried out at a tertiary trauma centre within the Spanish National Health System, included

all patients who underwent a bipolar HHA between 1st January 2018 and 31st December 2019 performed by 2 of our hip unit surgeons. **RESULTS:** A total of 94 patients were included (40 in DAA group and 54 in DLA group). Median follow-up was 19.2 months (range 8-30.8 months). Postoperative degree of mobilisation showed statistically significant differences in favour of DAA group, where 35% of patients were able to walk with no assistance after surgery. DAA group had 1 day less of hospitalisation in contrast with DLA group overall (8 days vs 9 days, respectively, $p < 0.05$). Statistically significant differences were not detected in comparing postoperative complications, re-operations rates or 6-months mortality rate. **CONCLUSION:** Our study highlights the benefits of DAA for HHA after displaced FNF in terms of postoperative mobilisation degree and hospitalisation length of stay when compared to DLA.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.73

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 53/127; Surgery 115/279

Q2

Mechó S, Iriarte I, Pruna R, Pérez-Andrés R, Rodríguez-Baeza A.

A newly discovered membrane at the origin of the proximal tendinous complex of the rectus femoris.

Surg Radiol Anat. 2022 Jun;44(6):835-843. doi: 10.1007/s00276-022-02954-3. Epub 2022 May 10.

PURPOSE: The rectus femoris (RF) forms the anterior portion of the quadriceps muscle group. It has a proximal tendinous complex (PTC) which is constituted by a direct tendon (DT), an indirect tendon (IT), and a variable third head. Direct and indirect tendons finally converge into a common tendon (CT). All the PTC shows a medially sloping in its proximal insertion. We investigated several anatomical specimens and discovered a new component: a membrane connecting the CT with the anterior superior iliac spine. Such membrane constitutes a new origin of the PTC. The aim of this study was to clarify whether this membrane was an anatomical variation of the PTC or a constant structure and to describe its morphology and trajectory. **MATERIAL AND METHODS:** We dissected 42 cadaveric lower limbs and examined the architecture of the PTC. We paid special attention to the morphology and interaction patterns between the tendons and the membrane. **RESULTS:** We demonstrated that the membrane is a constant component of the PTC. It has a lateral to medial trajectory and is in relation to the common tendon, the DT, and IT, which present a medial slope. This suggests that the membrane has a stabilizer role for the PTC, acting as a corrector of the inclined vector of the complex. **CONCLUSION:** The RF injuries are frequent in football. The newly discovered membrane is a constant component of the PTC and its integrity should be included in the algorithm to diagnose injuries.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 1.354

JCR Categoría: Anatomy & Morphology; Radiology, Nuclear Medicine, & Medical Imaging; Surgery

Posición: Anatomy & Morphology 14/21; Radiology, Nuclear Medicine & Medical Imaging 125/136 (Q4); Surgery 173/211 (Q4)

Q3

Morales-Avalos R, Perelli S, Vilchez-Cavazos F, Castillo-Escobedo T, Peña-Martínez VM, Elizondo-Omaña R, Guzmán-López S, Padilla-Medina JR, Monllau JC.

The morphology of the femoral footprint of the anterior cruciate ligament changes with aging from a large semicircular shape to a small flat ribbon-like shape.

Knee Surg Sports Traumatol Arthrosc. 2022 Mar 22. doi: 10.1007/s00167-022-06935-2. Online ahead of print.

PURPOSE: Compare the differences in the morphology of the ACL femoral footprint between the cadavers of the young and elderly in consideration of the degenerative physiological process that occurs with aging. **METHODS:** The femoral footprint of the ACL was dissected in 81 knees of known gender and age (45 male/36 female). They were divided into four groups by age and gender, establishing 50 years as the cut-off point to

divide patients by age. Three observers analyzed the femoral footprint dissections, and the shapes were described and classified. The area and morphometric characteristics of the femoral insertion of the ACL were determined and these were compared between genders and age groups. **RESULTS:** The femoral footprint of the ACL from the cadavers of males younger than 50 years of age presented a semicircular morphology in 90% of the cases. In males aged more than 50 years, a ribbon-like morphology was found in 96% of the cases. In women less than 50 years old, the semicircular morphology was observed in 93.7% of the cases. In women aged over 50 years old, the ribbon-like morphology was found in 95% of the cases. A significant difference was observed between the prevalence rates of the morphologies, area size and measurements of the younger and older groups ($p < 0.001$ for both genders). **CONCLUSIONS:** The femoral insertion of the ACL presents variations in its morphology, area and morphometric characteristics over time. It goes from a large semicircular shape that almost contacts the posterior articular cartilage to a smaller, flattened ribbon-like shape that moves away from the edge of the articular cartilage. It is bounded anteriorly by the lateral intercondylar ridge. These findings should be considered to avoid employing reconstruction techniques in which femoral tunnels with oval or rectangular shapes are used in patients under 50 years of age because they do not correspond to the morphology of the femoral insertion of the ACL in this age group.

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Indexado en: PubMed

Perelli S, Morales-Avalos R, Formagnana M, Rojas-Castillo G, Serrancolí G, Monllau JC.

Lateral extraarticular tenodesis improves stability in non-anatomic ACL reconstructed knees: in vivo kinematic analysis.

Knee Surg Sports Traumatol Arthrosc. 2022 Jun;30(6):1958-1966. doi: 10.1007/s00167-021-06854-8. Epub 2022 Jan 29.

PURPOSE: To carry out an in vivo kinematic analysis to determine whether adding a lateral extraarticular tenodesis (LET) for those patients with subjective instability and objective residual laxity after a transtibial (TT) anterior cruciate ligament reconstruction (ACLR) reduces anteroposterior and rotational laxity and to evaluate the 2-year follow-up clinical outcomes to analyze whether biomechanical changes determine clinical improvement or not. **METHODS:** A total of 19 patients with residual knee instability after TT ACLR who underwent a modified Lemaire LET were prospectively evaluated for at least 2-year follow-up. Preoperative, intraoperative, and 6 and 24-month postoperative kinematic analyses were carried out using the KiRA accelerometer and KT1000 arthrometer to look for residual anterolateral rotational instability and residual anteroposterior instability. Functional outcomes were measured with the single-leg vertical jump test and the single-leg hop test. Clinical outcomes were evaluated using the IKDC 2000, Lysholm, and Tegner scores. **RESULTS:** A significant reduction in anterolateral rotational instability was detected with the patient under anesthesia (from 3 ± 1.2 to 1.1 ± 1.1 m/s²; $p < 0.05$) as well as with the patient awake (from 2.1 ± 0.8 to 0.7 ± 1.4 m/s²; $p < 0.05$). A significant reduction in anteroposterior instability was only present under anesthesia (from 3.4 ± 1.9 to 2.1 ± 1.1 mm; $p < 0.05$), while no difference was present without anesthesia (from 2.3 ± 1.1 to 1.6 ± 1 mm; n.s.). Postoperative analysis of knee laxity did not show any significant variation from the first to the last follow-up. Both the single-leg vertical jump test and single-leg hop test improved significantly at the last follow-up (both $p < 0.05$). The mean values of both the IKDC and Tegner scores showed an improvement ($p < 0.05$ and $p < 0.05$, respectively), whereas that was not the case with the Lysholm score (n.s.). **CONCLUSIONS:** The modified Lemaire LET can improve the kinematics of a non-anatomic ACL reconstructed knee with residual subjective and objective instability. These kinematic changes were able to lead to an improvement in subjective stability as well as the function of the knee in a small cohort of recreationally active patients. At 2-year follow-up, the kinematic changes as well as the level of activity of the patients and the IKDC score show their improvement sustained. **LEVEL OF EVIDENCE:** Level IV.

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Indexado en: PubMed

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. 2022 Apr;35(5):566-573. doi: 10.1055/s-0040-1716380. Epub 2020 Sep 8.

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 significant major clinical complications.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.501 **JCR Categoría:** Orthopedics **Posición:** 43/86

Q3

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.

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Factor de Impacto: 2.928

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 33/86; Surgery 78/211

Q2

Soldado F, Barrera-Ochoa S, Romero-Larrauri P, Nguyen TQ, Diaz-Gallardo P, Knörr J.

Triceps to teres minor motor nerve transfer to restore glenohumeral external rotation after neonatal brachial plexus injury.

Microsurgery. 2022 Mar 2. doi: 10.1002/micr.30879. Online ahead of print.

INTRODUCTION: Attaining active glenohumeral external rotation (aGHER), whether via primary reconstruction or spontaneous recovery, is infrequent in patients with neonatal brachial plexus palsy (NBPI). We evaluated the effectiveness of triceps-to-teres minor motor branch transfers to restore this function, both performed primarily (i.e., in conjunction with microsurgical plexus reconstruction) or secondarily (after primary surgery has failed to restore aGHER). **PATIENTS AND METHODS:** This was a retrospective study of 12 children with NBPI undergoing triceps-to-teres minor motor branch transfer via an axillary approach, six undergoing primary surgery and six secondary. The primary outcome was post-operative restoration of aGHER in abduction. The primary-surgery group consisted of six children of mean age 8 months (range 5-11) with partial injuries ranging from C5-C6 to C5-C8. The secondary-surgery group included six patients with C5-C6 injuries of mean age 43 months (range 23-120), undergoing re-operation a mean 40 months (range 18-116) after their primary surgery. **RESULTS:** No complications occurred after surgery. At a mean follow-up of 22 months (range 14-30), aGHER in abduction only was restored in one patient in the primary group while in the secondary group, aGHER in abduction was restored in all patients to a mean 73° (range 70-80) after a mean follow-up of 16 months (range 6-26). **CONCLUSIONS:** Triceps-to-teres minor motor branch transfer is not indicated as primary surgery for NBPI. However, they can be effective in children in whom primary surgery has failed to restore aGHER, even if the spinal accessory nerve is unavailable for transfer to the infraspinatus motor branch.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.080

JCR Categoría: Surgery

Posición: 128/211

Q3

Soldado F, Barrera-Ochoa S, Romero-Larrauri P, Nguyen TQ, Diaz-Gallardo P, Guerra E, Knörr J.

Congenital pseudarthrosis of the tibia: Rate of and time to bone union following contralateral vascularized periosteal tibial graft transplantation.

Microsurgery. 2022 May;42(4):326-332. doi: 10.1002/micr.30868. Epub 2022 Feb 8.

INTRODUCTION: Congenital pseudarthrosis of the tibia (CPT) is one of the most challenging orthopedic disorders. The use of a vascularized tibial periosteal grafts has been recently reported as a powerful tool to

obtain bone union. We report its use in CPT. **PATIENTS AND METHODS:** Retrospective short-term study of 29 children (18 male/11 female, 15 right-sided/14 left-sided) of mean age 45 months (range 11-144 months), operated upon after October 2014. Nonunion site was debrided, and the periosteum of the involved limb was excised. A vascularized tibial periosteal graft (mean length 10.7 cm (range 9-15 cm) with a monitoring skin island (mean length 4.1 cm (range 3-5 cm) and based on the anterior tibial vessels, was obtained from the contralateral tibia. Anterior tibial vessels were always the recipient vessels. Most cases were stabilized with an LCP plate. The rate of and time to bone union were analyzed. Charts only were evaluated through the first 3 months after bone union was achieved. **RESULTS:** The flap survived and bone union was obtained in all cases, through a periosteal callus, in a mean time of 5.1 weeks (range 3-6 weeks). Mean follow-up was 8.3 months (range 7-19 months). No union failures occurred 3 months after resuming unprotected weight bearing. **CONCLUSIONS:** Our novel technique produced a consistent, rapid capacity for CPT union, superior to previously-reported techniques. However, it cannot be recommended as a standard method of treatment until consistent, long-term, refracture-free follow-up is documented.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.080

JCR Categoría: Surgery

Posición: 128/211

Q3

Truong AP, Pérez-Prieto D, Byrnes J, Monllau JC, Vertullo CJ.

Vancomycin Soaking Is Highly Cost-Effective in Primary ACLR Infection Prevention: A Cost-Effectiveness Study.

Am J Sports Med. 2022 Mar;50(4):922-931. doi: 10.1177/03635465211073338. Epub 2022 Feb 18.

BACKGROUND: Although presoaking grafts in vancomycin has been demonstrated to be effective in observational studies for anterior cruciate ligament reconstruction (ACLR) infection prevention, the economic benefit of the technique is uncertain. **PURPOSE:** To 1) determine the cost-effectiveness of vancomycin presoaking during primary ACLR to prevent postoperative joint infections and 2) to establish the break-even cost-effectiveness threshold of the technique and determine its cost-effectiveness across various international health care settings. **STUDY DESIGN:** Economic and decision analysis; Level of evidence, 2. **METHODS:** A Markov model was used to determine cost-effectiveness and the incremental cost-effectiveness ratio of additional vancomycin presoaking compared with intravenous antibiotic prophylaxis alone. A repeated search of the PubMed, SCOPUS, and Cochrane Central Register of Controlled Trials databases, using the same criteria as a recent meta-analysis, was completed. A repeated meta-analysis of 9 cohort studies (level 3 evidence) was completed to determine the odds ratio of infection with vancomycin presoaking compared with intravenous antibiotics alone. Estimated costs of the vancomycin technique, treatment of infection, and further surgery were sourced from local hospitals and literature. Transitional probabilities for further surgery, including revision reconstruction and primary arthroplasty, were obtained from the literature. Probabilistic sensitivity analyses and a 1-way sensitivity analysis were performed to evaluate the ACLR infection rate break-even threshold for which the vancomycin technique would be no longer cost-effective. **RESULTS:** The vancomycin soaking technique provides expected cost savings of \$660 (USA), A\$581 (Australia), and €226 (Spain) per patient. There was an improvement in the quality-adjusted life-years of 0.007 compared with intravenous antibiotic prophylaxis alone (4.297 vs 4.290). If the infection rate is below 0.014% with intravenous antibiotics alone, the vancomycin wrap would no longer be cost-effective. **CONCLUSION:** The vancomycin presoaking technique is a highly cost-effective method to prevent postoperative septic arthritis after primary ACLR.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.010

JCR Categoría: Orthopedics; Sport Sciences

Posición: Orthopedics 3/86; Sport Sciences 6/87

Q1

Valle X, Mechó S, Alentorn-Geli E, Järvinen TAH, Lempainen L, Pruna R, Monllau JC, Rodas G, Isern-Kebschull J, Ghrairi M, Yanguas X, Balius R, la Torre AM.

Return to Play Prediction Accuracy of the MLG-R Classification System for Hamstring Injuries in Football Players: A Machine Learning Approach.

Sports Med. 2022 May 24. doi: 10.1007/s40279-022-01672-5. Online ahead of print.

BACKGROUND AND OBJECTIVE: Muscle injuries are one of the main daily problems in sports medicine, football in particular. However, we do not have a reliable means to predict the outcome, i.e. return to play from severe injury. The aim of the present study was to evaluate the capability of the MLG-R classification system to grade hamstring muscle injuries by severity, offer a prognosis for the return to play, and identify injuries with a higher risk of re-injury. Furthermore, we aimed to assess the consistency of our proposed system by investigating its intra-observer and inter-observer reliability. **METHODS:** All male professional football players from FC Barcelona, senior A and B and the two U-19 teams, with injuries that occurred between February 2010 and February 2020 were reviewed. Only players with a clinical presentation of a hamstring muscle injury, with complete clinic information and magnetic resonance images, were included. Three different statistical and machine learning approaches (linear regression, random forest, and eXtreme Gradient Boosting) were used to assess the importance of each factor of the MLG-R classification system in determining the return to play, as well as to offer a prediction of the expected return to play. We used the Cohen's kappa and the intra-class correlation coefficient to assess the intra-observer and inter-observer reliability. **RESULTS:** Between 2010 and 2020, 76 hamstring injuries corresponding to 42 different players were identified, of which 50 (65.8%) were grade 3r, 54 (71.1%) affected the biceps femoris long head, and 33 of the 76 (43.4%) were located at the proximal myotendinous junction. The mean return to play for grades 2, 3, and 3r injuries were 14.3, 12.4, and 37 days, respectively. Injuries affecting the proximal myotendinous junction had a mean return to play of 31.7 days while those affecting the distal part of the myotendinous junction had a mean return to play of 23.9 days. The analysis of the grade 3r biceps femoris long head injuries located at the free tendon showed a median return to play time of 56 days while the injuries located at the central tendon had a shorter return to play of 24 days ($p = 0.038$). The statistical analysis showed an excellent predictive power of the MLG-R classification system with a mean absolute error of 9.8 days and an R-squared of 0.48. The most important factors to determine the return to play were if the injury was at the free tendon of the biceps femoris long head or if it was a grade 3r injury. For all the items of the MLG-R classification, the intra-observer and inter-observer reliability was excellent ($\kappa > 0.93$) except for fibres blurring ($\kappa = 0.68$). **CONCLUSIONS:** The main determinant for a long return to play after a hamstring injury is the injury affecting the connective tissue structures of the hamstring. We developed a reliable hamstring muscle injury classification system based on magnetic resonance imaging that showed excellent results in terms of reliability, prognosis capability and objectivity. It is easy to use in clinical daily practice, and can be further adapted to future knowledge. The adoption of this system by the medical community would allow a uniform diagnosis leading to better injury management.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 11.928

JCR Categoría: Sport Sciences

Posición: 3/87

Q1

Wang CK, Cohen D, Kay J, Almasri M, Simunovic N, Cardenas-Nylander C, Ranawat AS, Ayeni OR.

The Effect of Femoral and Acetabular Version on Outcomes Following Hip Arthroscopy: A Systematic Review.

J Bone Joint Surg Am. 2022 Feb 2;104(3):271-283. doi: 10.2106/JBJS.21.00375.

BACKGROUND: Torsional hip deformities are common among patients undergoing hip arthroscopy. However, recent studies have suggested conflicting outcomes following arthroscopy in the setting of abnormal hip version. The purpose of this study was to systematically evaluate the literature and determine the impact of femoral and acetabular version on patient-reported outcomes following primary arthroscopic hip surgery.

METHODS: This study was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement. Studies investigating femoral and acetabular version in primary hip arthroscopy with clinical outcomes were identified, and data were extracted in duplicate. **RESULTS:** Overall, 11 studies met inclusion criteria and comprised 1,297 hips (726 femora and 571 acetabulae), with a mean patient age of 29.2 years (range, 14 to 74.7 years). In patients with acetabular retroversion, there was no significant difference, when compared with the normal acetabular version group, in the modified Harris hip score (mHHS), the Hip Outcome Score-Sports Specific Subscale (HOS-SSS), and visual analog scale (VAS) pain scores postoperatively. Among patients with femoral retroversion, in 2 of 3 studies, the authors reported no difference in mHHS postoperatively compared with patients with normal femoral version. In patients with high femoral anteversion, in 2 of 3 studies, the authors reported a significant difference in postoperative mHHS favoring patients with normal femoral version. Studies examining high femoral anteversion included patients with borderline hip dysplasia and patients who underwent concurrent psoas-lengthening procedures. **CONCLUSIONS:** Although the definition of the normal version of the hip varied within the literature, hip arthroscopy in patients with acetabular retroversion resulted in no difference in functional outcomes compared with patients with normal version. Postoperative functional outcomes in patients with femoral retroversion and high femoral anteversion were mixed, although the procedure was possibly less effective in high femoral anteversion combined with specific clinical scenarios. Further prospective studies based on standardized definitions and version analysis techniques would be useful in identifying the precise surgical indications for safe arthroscopic surgical procedures in patients with version abnormalities of the femur and acetabulum, particularly those with high femoral anteversion and retroversion. **LEVEL OF EVIDENCE:** Prognostic Level IV. See Instructions for Authors for a complete description of levels of evidence.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.558

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 4/86; Surgery 13/211

Q1

Wirries N, Ezechieli M, Schwarze M, Derksen A, Budde S, Ribas M, Windhagen H, Floerkemeier T.

The lateral joint space width is essential for the outcome after arthroscopically assisted mini-open arthrotomy for treatment of a femoroacetabular impingement: an analysis of prognostic factors for the success of this hip-preserving technique.

Int Orthop. 2022 Feb;46(2):205-214. doi: 10.1007/s00264-021-05181-4. Epub 2021 Aug 19.

Comment in

Int Orthop. 2021 Oct;45(10):2761-2762.

PURPOSE: The purpose of this study was to analyze predicting factors for a conversion to a total hip replacement (THR) after mini-open arthrotomy for treatment of femoroacetabular impingement (FAI). **METHODS:** Between 2011 and 2016, we identified 32 patients, who were treated for FAI with a mini-open arthrotomy and received after mean time of 2.1 ± 1.4 years a THR. These patients were compared to 47 cases who did not receive a THR (mean follow-up: 4.3 ± 0.7 years) to explore pre- and intra-operative factors associated with a conversion to THR. The results were presented in separated Kaplan-Meier curves with log rank test for significance and hazard ratios. **RESULTS:** A lateral joint space width of > 4 mm showed a higher THR-free survival rate compared to < 4 mm ($p = 0.001$); analogously one-sided (acetabular/femoral) 3-4° cartilage damage had a comparable THR-free survival rate than 1-2° kissing lesions ($p = 0.001$). Furthermore, an intact labrum without treatment and good cartilage status, a refixed labrum after rim resection in case of a pincer type FAI, or a refixed teared labrum were associated with a longer THR-free time than an untreated labrum accompanied by a poor cartilage status or an ossified labrum ($p = 0.002$). The strongest independent factor for a conversion to THR was femoral cartilage damage grade 1 and higher ($p = 0.046$). However, the rate of available patients was

53.0%. **CONCLUSION:** The success of a joint-preserving mini-open arthrotomy seems to be dependent on the status of the radiological joint space width and the intra-operative cartilage status of the lateral edge.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.479

JCR Categoría: Orthopedics

Posición: 25/86

Q2

Zimmerer A, Ramirez L, Astarita E, Bellotti V, Cárdenas C, Ribas M.

[Arthroscopically assisted minimally invasive symphysioplasty for the treatment of pubic related groin pain].

[Article in German; Abstract available in German from the publisher]

Oper Orthop Traumatol. 2022 Apr;34(2):109-116. doi: 10.1007/s00064-021-00753-4. Epub 2021 Dec 8.

OBJECTIVE: Therapy of pubic related groin pain via minimally invasive symphysioplasty. **INDICATIONS:** Therapy of refractory pubic related groin pain based on osteitis pubis. **CONTRAINDICATIONS:** Groin pain from causes other than pubic related groin pain. **SURGICAL TECHNIQUE:** After a minimally invasive approach, an incision in the anterior capsule is made while protecting the dorsal capsule parts and the arcuate pubic ligament. The symphysis end plates are remodeled arthroscopically assisted using a surgical burr. The newly created pubic symphysis joint is filled with autogenous fibrin to support the formation of a new discus interpubicus. **POSTOPERATIVE MANAGEMENT:** Partial weight-bearing for 4 weeks with 20 kg using crutches is recommended. During the first 4 weeks the range of motion should be restricted. **RESULTS:** Since 2010, 10 athletes (7 men, 3 women; average age 34.1 ± 7.8 (23-47) years) have undergone arthroscopically assisted minimally invasive symphysioplasty and treatment of femoroacetabular impingement syndrome. The average follow-up time was 5.1 (2-9) years. All patients returned to their sport level. The mean preoperative Nonarthritic Hip Score (NAHS) of 64.4 ± 15.1 (32.1-86.5) points improved to a mean postoperative NAHS of 91.4 ± 9.8 (62.4-98.75) points ($p < 0.0001$). The average patient satisfaction (scale 0 to 10; 10 highest satisfaction) was 9.8 ± 0.4 (9-10).

Publisher: ZUSAMMENFASSUNG: **OPERATIONSZIEL:** Therapie des schambeinbedingten Leistenschmerzes über eine minimal-invasive Symphysioplastik. **INDIKATIONEN:** Therapierefraktärer schambeinbedingter Leistenschmerz auf Basis einer Osteitis pubis. **KONTRAINDIKATIONEN:** Leistenschmerz anderer Genese. **OPERATIONSTECHNIK:** Nach minimal-invasivem Zugang erfolgt die Eröffnung der anterioren Kapsel unter Schonung der dorsalen Kapselanteile und des Ligamentum arcuatum pubis. Die Symphysenendplatten werden mittels Kugelfräse arthroskopisch assistiert remodelliert. Die neu geschaffene Schambeinfuge wird mit autogenem Fibrin gefüllt, um die Bildung eines Neodiskus zu unterstützen. Abschließend erfolgt der schichtweise Wundverschluss. **WEITERBEHANDLUNG:** Teilbelastung mit 20 kg an Unterarmgehstützen für 4 Wochen, danach langsames Aufbelasten. In den ersten 4 Wochen sollte die Flexion auf 60° und die Innenrotation auf 10° eingeschränkt werden. **ERGEBNISSE:** Seit 2010 bis 2018 wurden 10 Sportler (7 männlich, 3 weiblich; Durchschnittsalter $34,1 \pm 7,8$ [23–47] Jahre) mittels arthroskopisch assistierter, minimal-invasiver Symphysioplastik und operativer Therapie des femoroazetabulären Impingementsyndroms behandelt. Die durchschnittliche Nachuntersuchungszeit betrug 5,1 (2–9) Jahre. Alle Patienten konnten zu ihrem Sportniveau zurückkehren. Der Non-Arthritic Hip Score (NAHS) zeigt zum Follow-up-Zeitpunkt einen signifikanten Anstieg von $64,4 \pm 15,1$ (32,1–86,5) auf $91,4 \pm 9,8$ (62,4–98,75) Punkte ($p < 0,0001$). Die durchschnittliche Patientenzufriedenheit (Skala 0 bis 10; 10 höchste Zufriedenheit) lag bei $9,8 \pm 0,4$ (9–10).

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INSTITUTO ONCOLÓGICO DR. ROSELL – DEXEUS

Nº Artículos indexados: 14

Journal Impact Factor™ – 2021:

Factor impacto medio x artículo:

Arriola E, **González-Cao M**, Domine M, De Castro J, Cobo M, Bernabé R, Navarro A, Sullivan I, Trigo JM, Mosquera J, Crama L, Isla D.

Addition of Immune Checkpoint Inhibitors to Chemotherapy vs Chemotherapy Alone as First-Line Treatment in Extensive-Stage Small-Cell Lung Carcinoma: A Systematic Review and Meta-Analysis.

Oncol Ther. 2022 Jan 15. doi: 10.1007/s40487-021-00182-0. Online ahead of print.

INTRODUCTION: The addition of immune checkpoint inhibitors (ICIs) to conventional chemotherapy (CT) as first-line treatment improves survival in extensive-stage small-cell lung cancer (ES-SCLC). The aim of this meta-analysis was to determine the relative efficacy of first-line ICIs compared with CT in patients with ES-SCLC.

METHODS: Two independent reviewers extracted relevant data according to PRISMA guidelines and assessed the risk of bias using the Cochrane Collaboration's risk-of-bias tool. Meta-analysis was conducted using random-effects models to calculate an average effect size for overall survival (OS), progression-free survival (PFS), and safety outcomes in the overall populations and clinically relevant subgroups. **RESULTS:** A literature search of PubMed and Embase was performed. Six randomized controlled clinical trials (IMpower133, CHECKMATE-451, CASPIAN, KEYNOTE-604, and phase II and III ipilimumab plus CT trials) with a total of 3757 patients were included. Compared with CT alone, ICIs plus CT showed a favourable effect on OS (hazard ratio [HR] 0.85; 95% confidence intervals [CI] 0.79-0.96) and PFS (HR 0.78; 95% CI 0.72-0.83) but a non-significant increase in the risk of experiencing any adverse event (relative risk, 1.05; 95% CI 0.99-1.11). The estimated HR for OS favoured ICI combinations in all planned subgroups according to age (< 65 years/≥ 65 years), sex (men/women), and ECOG performance status (0/1). Analysis by specific ICI revealed significant improvements in OS only for atezolizumab + CT (HR 1.36; 95% CI 1.09-1.69) and durvalumab + CT (HR 1.35; 95% CI 1.12-1.62) compared with CT alone. **CONCLUSION:** Combining anti-programmed cell death ligand 1 antibodies with platinum/etoposide is a superior therapeutic approach compared to CT alone for the first-line treatment of patients with ES-SCLC.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.32

JCR Categoría: Oncology

Posición: 260/317

Q4

Cardona AF, **González-Cao M**, Arrieta O, **Rosell R**.

Location of EGFR exon 20 insertions matters.

Cancer Cell. 2022 Jul 11;40(7):705-708. doi: 10.1016/j.ccell.2022.06.002.

EGFR exon 20 insertions represent a subgroup of NSCLC patients posed with a therapy dilemma. In this issue of Cancer Cell, Elamin and colleagues demonstrate that only insertions localized in the near loop respond to poziotinib. Pharmacological inhibition of spindle assembly checkpoint components inhibits tumor growth in poziotinib-resistant exon 20 insertions.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 38.585

JCR Categoría: Oncology; Cell Biology

Posición: Oncology 8/245; Cell Biology 5/194

Q1

Cordeiro de Lima VC, Corassa M, Saldanha E, Freitas H, Arrieta O, Raez L, Samtani S, Ramos M, Rojas C, Burotto M, Chamorro DF, Recondo G, Ruiz-Patiño A, Más L, Zatarain-Barrón L, Mejía S, Nicolas Minata J, Martín C, Bautista Blaquier J, Motta Guerrero R, Aliaga-Macha C, Carracedo C, Ordóñez-Reyes C, Garcia-Robledo JE, Corrales L, Sotelo C, Ricaurte L, Santoyo N, Cuello M, Jaller E, Rodríguez J, Archila P, Bermudez M, Gamez T, Russo A, Viola L, Malapelle U, de Miguel Perez D, Rolfo C, **Rosell R**, Cardona AF.

STK11 and KEAP1 mutations in non-small cell lung cancer patients: Descriptive analysis and prognostic value among Hispanics (STRIKE registry-CLICaP).

Lung Cancer. 2022 Jun 20;170:114-121. doi: 10.1016/j.lungcan.2022.06.010. Online ahead of print.

BACKGROUND: Mutations in STK11 (STK11Mut) and, frequently co-occurring, KEAP1 mutations (KEAP1Mut) are associated with poor survival in metastatic Non-small Cell Lung Cancer (mNSCLC) patients treated with immunotherapy. However, there are limited data regarding the prognostic or predictive significance of these genomic alterations among Hispanics. **METHODS:** This retrospective study analyzed a cohort of Hispanic patients (N = 103) diagnosed with mNSCLC from the US and seven Latin American countries (LATAM) treated with immune checkpoint inhibitors (ICI) alone or in combination as first-line (Cohort A). All cases were treated in routine care between January 2016 and December 2021. The main objectives were to determine the association of mutations in STK11 or KEAP1 in these patients' tumors with overall (OS) and progression-free survival (PFS), presence of KRAS mutations, tumor mutational burden (TMB), and other relevant clinical variables. To compare outcomes with a STK11Wt/KEAP1Wt population, historical data from a cohort of Hispanic patients (N = 101) treated with first-line ICI was used, matching both groups by country of origin, gender, and Programmed Death-ligand 1 (PD-L1) expression level (Cohort B). **RESULTS:** Most tumors had mutations only in STK11 or KEAP1 (45.6%) without KRAS co-mutation or any other genomic alteration. Besides, 35%, 8.7%, 6.8%, and 3.9% were KRASMut + STK11Mut, KRASMut + STK11Mut + KEAP1Mut, STK11Mut + KEAP1Mut, and KRASMut + KEAP1Mut, respectively. Based on KRAS status, STK11 alterations were associated with significantly lower PD-L1 expression among those with KRASWt ($p = 0.023$), whereas KEAP1 mutations were predominantly associated with lower PD-L1 expression among KRASMut cases ($p = 0.047$). Tumors with KRASMut + KEAP1Mut had significantly higher median TMB when compared to other tumors ($p = 0.040$). For Cohort A, median PFS was 4.9 months (95%CI 4.3-5.4), slightly longer in those with KEAP1mut 6.1 months versus STK11Mut 4.7 months ($p = 0.38$). In the same cohort, PD-L1 expression and TMB did not influence PFS. OS was significantly longer among patients with tumors with PD-L1 $\geq 50\%$ (30.9 months), and different from those with PD-L1 1-49% (22.0 months), and PD-L1 $< 1\%$ (12.0 months) ($p = 0.0001$). When we compared the cohorts A and B, OS was significantly shorter for patients carrying STK11 [STK11Mut 14.2 months versus STK11Wt 27.0 months ($p = 0.0001$)] or KEAP1 [KEAP1Mut 12.0 months versus KEAP1Wt 24.4 months ($p = 0.005$)] mutations. PD-L1 expression significantly affected OS independently of the presence of mutations in STK11, KEAP1, or KRAS. TMB-H favored better OS. **CONCLUSIONS:** This is the first large Hispanic cohort to study the impact of STK11 and KEAP1 mutations in NSCLC patient treated with ICI. Our data suggest that mutations in the above-mentioned genes are associated with PD-L1 expression levels and poor OS.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.081 **JCR Categoría:** Oncology; Respiratory System **Posición:** Oncology 67/242 (Q2); Respiratory System 16/65

Q1

Cortot A, Le X, Smit E, **Viteri S**, Kato T, Sakai H, Park K, Camidge DR, Berghoff K, Vlassak S, Paik PK.

Safety of MET Tyrosine Kinase Inhibitors in Patients With MET Exon 14 Skipping Non-small Cell Lung Cancer: A Clinical Review.

Clin Lung Cancer. 2022 Feb 4:S1525-7304(22)00013-4. doi: 10.1016/j.clcc.2022.01.003. Online ahead of print.

MET exon 14 (METex14) skipping mutations occur in 3% to 4% of non-small cell lung cancer (NSCLC) cases. Currently, four oral MET tyrosine kinase inhibitors (TKIs) are in use for the treatment of patients with METex14 skipping NSCLC (tepotinib, capmatinib, savolitinib, and crizotinib). To support optimal management of METex14 skipping NSCLC in this typically older patient population, the safety profiles of these treatment options are reviewed here. Published safety data from prospective clinical trials with MET TKIs in patients with METex14 skipping NSCLC were reviewed. Treatment-related adverse events (TRAEs) occurring in $\geq 10\%$ of patients were reported where feasible. Guidance on clinical monitoring and management of key MET TKI TRAEs and drug-drug interactions is provided. Across the clinical trials, safety data for MET TKIs were reported for 442 patients with METex14 skipping. Peripheral edema was the most reported TRAE (50%-63% of patients; grade ≥ 3 : 1%-11%), followed by nausea (26%-46% of patients; grade ≥ 3 : 0%-1%). TRAEs led to dose reductions in 33% to 38% of patients and to discontinuation in 7% to 14% of patients, across the MET TKIs. Considerations on interpreting available safety data are provided, along with insights into monitoring and managing specific MET TKI TRAEs of interest and drug-drug interactions. Overall, MET TKIs are tolerable treatment options for patients with METex14 skipping NSCLC, an older population for whom chemo- or immuno-therapy may not be an effective nor tolerable option. More data regarding the effectiveness of safety interventions and management strategies are needed.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.840 **JCR Categoría:** Oncology **Posición:** 100/245

Q2

Elzanowska J, Berrocal L, García-Peláez B, Vives-Usano M, Sebo BP, Maia J, Batista S, Teppo J, Varjosalo M, Moraes MCS, Molina-Vila MÁ, Costa-Silva B.

Defining Optimal Conditions for Tumor Extracellular Vesicle DNA Extraction for Mutation Profiling.

Cancers (Basel). 2022 Jul 2;14(13):3258. doi: 10.3390/cancers14133258.

(1) Background: Extracellular vesicles (EVs) have emerged as crucial players in the communication between cells in both physiological and pathological scenarios. The functions of EVs are strongly determined by their molecular content, which includes all bioactive molecules, such as proteins, lipids, RNA, and, as more recently described, double-stranded DNA. It has been shown that in oncological settings DNA associated with EVs (EV-DNA) is representative of the genome of parental cells and that it reflects the mutational status of the tumor, gaining much attention as a promising source of biomarker mutant DNA. However, one of the challenges in studies of EV-DNA is the lack of standardization of protocols for the DNA extraction from EVs, as well as ways to assess quality control, which hinders its future implementation in clinics. **(2) Methods:** We performed a comprehensive comparison of commonly used approaches for EV-DNA extraction by assessing DNA quantity, quality, and suitability for downstream analyses. **(3) Results:** We here established strategic points to consider for EV-DNA preparation for mutational analyses, including qPCR and NGS. **(4) Conclusions:** We put in place a workflow that can be applied for the detection of clinically relevant mutations in the EV-DNA of cancer patients.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.575 **JCR Categoría:** Oncology **Posición:** 60/245

Q1

García-Robledo JE, Rosell R, Ruíz-Patiño A, Sotelo C, Arrieta O, Zatarain-Barrón L, Ordoñez C, Jaller E, Rojas L, Russo A, de Miguel-Pérez D, Rolfo C, Cardona AF.

KRAS and MET in non-small-cell lung cancer: two of the new kids on the 'drivers' block.

Ther Adv Respir Dis. 2022 Jan-Dec;16:17534666211066064. doi: 10.1177/17534666211066064.

Non-small-cell lung cancer (NSCLC) is a heterogeneous disease, and therapeutic management has advanced to identify various critical oncogenic mutations that promote lung cancer tumorigenesis. Subsequent studies have

developed targeted therapies against these oncogenes in the hope of personalized treatment based on the tumor's molecular genomics. This review presents a comprehensive review of the biology, new therapeutic interventions, and resistance patterns of two well-defined subgroups, tumors with KRAS and MET alterations. We also discuss the status of molecular testing practices for these two key oncogenic drivers, considering the progressive introduction of next-generation sequencing (NGS) and RNA sequencing in regular clinical practice.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 5.158 **JCR Categoría:** Respiratory System **Posición:** 20/65

Q2

Kallergi G, Kontopodis E, Ntzifa A, **Jordana-Ariza N**, **Karachaliou N**, Pantazaka E, Charalambous HA, Psyrris A, Tsaroucha E, Boukovinas I, Koumariou A, Hatzidaki D, Lianidou E, Georgoulis V, **Rosell R**, Kotsakis A.

Effect of Osimertinib on CTCs and ctDNA in EGFR Mutant Non-Small Cell Lung Cancer Patients: The Prognostic Relevance of Liquid Biopsy.

Cancers (Basel). 2022 Mar 19;14(6):1574. doi: 10.3390/cancers14061574.

INTRODUCTION: Liquid biopsy is a useful tool for monitoring treatment outcome in solid tumors, including lung cancer. The relevance of monitoring CTCs and plasma ctDNA as predictors of clinical outcome was assessed in EGFR-mutant NSCLC patients treated with osimertinib. **METHODS:** Forty-seven EGFR-mutant NSCLC patients who had progressed on prior first- or second-generation EGFR inhibitors were enrolled in the study and treated with osimertinib, irrespective of the presence of the T790M mutation in the primary tumor or the plasma. Peripheral blood was collected at baseline (n = 47), post-Cycle 1 (n = 47), and at the end of treatment (EOT; n = 39). CTCs were evaluated in 32 patients at the same time points (n = 32, n = 27, and n = 21, respectively) and phenotypic characterization was performed using triple immunofluorescence staining (CK/VIM/CD45). **RESULTS:** Osimertinib resulted in an ORR of 34% (2 CR) and a DCR of 76.6%. The median PFS and OS values were 7.5 (range, 0.8-52.8) and 15.1 (range, 2.1-52.8) months, respectively. ctDNA was detected in 61.7%, 27.7%, and 61.5% of patients at baseline, post-Cycle 1, and EOT, respectively. CTCs (CK+/CD45-) were detected in 68.8%, 48.1%, and 61.9% of patients at the three time points, respectively. CTCs expressing both epithelial and mesenchymal markers (CK+/VIM+/CD45-) were detected in 56.3% and 29.6% of patients at baseline and post-Cycle 1, respectively. The detection of ctDNA at baseline and post-Cycle 1 was associated with shorter PFS and OS, whereas the ctDNA clearance post-Cycle 1 resulted in a significantly longer PFS and OS. Multivariate analysis revealed that male sex and the detection of ctDNA at baseline were independent predictors of shorter PFS (HR: 2.6, 95% C.I.: 1.2-5.5, p = 0.015 and HR: 3.0, 95% C.I.: 1.3-6.9; p = 0.009, respectively). **CONCLUSIONS:** The decrease in both CTCs and ctDNA occurring early during osimertinib treatment is predictive of better outcome, implying that liquid biopsy monitoring may be a valuable tool for the assessment of treatment efficacy.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.575 **JCR Categoría:** Oncology **Posición:** 60/245

Q1

Kast RE, Alfieri A, Assi HI, Burns TC, Elyamany AM, **Gonzalez-Cao M**, Karpel-Massler G, Marosi C, Salacz ME, Sardi I, Van Vlierberghe P, Zaghoul MS, Halatsch ME.

MDACT: A New Principle of Adjunctive Cancer Treatment Using Combinations of Multiple Repurposed Drugs, with an Example Regimen.

Cancers (Basel). 2022 May 23;14(10):2563. doi: 10.3390/cancers14102563.

In part one of this two-part paper, we present eight principles that we believe must be considered for more effective treatment of the currently incurable cancers. These are addressed by multidrug adjunctive cancer treatment (MDACT), which uses multiple repurposed non-oncology drugs, not primarily to kill malignant cells, but rather to reduce the malignant cells' growth drives. Previous multidrug regimens have used MDACT principles, e.g., the CUSP9v3 glioblastoma treatment. MDACT is an amalgam of (1) the principle that to be effective in stopping a chain of events leading to an undesired outcome, one must break more than one link; (2)

the principle of Palmer et al. of achieving fractional cancer cell killing via multiple drugs with independent mechanisms of action; (3) the principle of shaping versus decisive operations, both being required for successful cancer treatment; (4) an idea adapted from Chow et al., of using multiple cytotoxic medicines at low doses; (5) the idea behind CUSP9v3, using many non-oncology CNS-penetrant drugs from general medical practice, repurposed to block tumor survival paths; (6) the concept from chess that every move creates weaknesses and strengths; (7) the principle of mass-by adding force to a given effort, the chances of achieving the goal increase; and (8) the principle of blocking parallel signaling pathways. Part two gives an example MDACT regimen, gMDACT, which uses six repurposed drugs-celecoxib, dapson, disulfiram, itraconazole, pyrimethamine, and telmisartan-to interfere with growth-driving elements common to cholangiocarcinoma, colon adenocarcinoma, glioblastoma, and non-small-cell lung cancer. gMDACT is another example of-not a replacement for-previous multidrug regimens already in clinical use, such as CUSP9v3. MDACT regimens are designed as adjuvants to be used with cytotoxic drugs.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.575

JCR Categoría: Oncology

Posición: 60/245

Q1

Le X, O'Hara R, Paz-Ares L, Van Meerbeek JP, **Viteri Ramirez S**, Galvez CC, Baz DV, Kim YC, Kang, Schumacher KM, Karachaliou N, Adrian S, Bruns R, Paik P.

Tepotinib in Patients with Advanced NSCLC with MET Amplification (METamp)

Int J Radiat Oncol Biol Phys. 2022 Feb 01; 112(2): E6-E7. Meeting Abstract 9.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.013

JCR Categoría: Oncology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Oncology 45/245; Radiology, Nuclear Medicine & Medical Imaging 13/136

Q1

Le X, Sakai H, Felip E, Veillon R, Garassino MC, Raskin J, Cortot AB, **Viteri S**, Mazieres J, Smit EF, Thomas M, Iams WT, Cho BC, Kim HR, Yang JC, Chen YM, Patel JD, Bestvina CM, Park K, Griesinger F, Johnson M, Gottfried M, Britschgi C, Heymach J, Sikoglu E, Berghoff K, Schumacher KM, Bruns R, Otto G, Paik PK.

Tepotinib Efficacy and Safety in Patients with MET Exon 14 Skipping NSCLC: Outcomes in Patient Subgroups from the VISION Study with Relevance for Clinical Practice.

Clin Cancer Res. 2022 Mar 15;28(6):1117-1126. doi: 10.1158/1078-0432.CCR-21-2733.

Comment in

Clin Cancer Res. 2022 Mar 15;28(6):1055-1057.

PURPOSE: Primary analysis of VISION showed tepotinib had durable clinical activity in patients with MET exon 14 (METex14) skipping non-small cell lung cancer (NSCLC). We present updated outcomes for clinically relevant subgroups. **PATIENTS AND METHODS:** This phase II, open-label, multi-cohort study of 500 mg (450 mg active moiety) tepotinib in patients with METex14 skipping NSCLC assessed efficacy and safety in predefined subgroups according to age, prior therapies (chemotherapy and immune checkpoint inhibitors), and brain metastases. An ad hoc retrospective analysis using Response Assessment in Neuro-Oncology Brain Metastases (RANO-BM) criteria assessed intracranial activity. **RESULTS:** 152 patients were evaluable for efficacy (median age: 73.1). Overall, objective response rate (ORR) was 44.7% [95% confidence interval (CI): 36.7-53.0]. Patients aged <75 (n = 84) and ≥75 (n = 68) had ORRs of 48.8% (95% CI: 37.7-60.0) and 39.7% (95% CI: 28.0-52.3), respectively. Treatment-naïve (n = 69) versus previously treated (n = 83) patients showed consistent efficacy [ORR (95% CI): 44.9% (32.9-57.4) vs. 44.6% (33.7-55.9)]; median duration of response (95% CI): 10.8 (6.9-not estimable) vs. 11.1 (9.5-18.5) months]. Of 15 patients analyzed by RANO-BM (12 received prior radiotherapy), 13 achieved intracranial disease control; 5 of 7 patients with measurable brain metastases had partial intracranial responses. Of 255 patients evaluable for safety, 64 (25.1%) experienced grade ≥3 treatment-related adverse events (TRAE), leading to discontinuation in 27 patients (10.6%). Rates of adverse events (AE) were

broadly consistent irrespective of prior therapies. **CONCLUSIONS:** Tepotinib showed meaningful activity across subgroups by age, prior therapies, and brain metastases, with a manageable safety profile and few treatment discontinuations. See related commentary by Rosner and Spira, p. 1055.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 13.801

JCR Categoría: Oncology

Posición: 17/245

Q1

Luca C, Pepe F, Pisapia P, Iaccarino A, Righi L, Listì A, Russo G, Campione S, Pagni F, Nacchio M, Conticelli F, Russo M, Fabozzi T, Vigliar E, Bellevicine C, Rocco D, Laudati S, Iannaci G, Daniele B, Gridelli C, Cortinovis DL, Novello S, **Molina-Vila MA, Rosell R**, Troncone G, Malapelle U.

RNA-based next generation sequencing in non-small-cell lung cancer in a routine setting: an experience from an Italian referral center.

Per Med. 2022 Jul 8. doi: 10.2217/pme-2022-0020. Online ahead of print.

Aim: ALK, ROS1, NTRK and RET gene fusions and MET exon 14 skipping alterations represent novel predictive biomarkers for advanced non-small-cell lung cancer (NSCLC). Therefore, testing patients for these genetic variants is crucial for choosing the best selective treatment. Over the last couple of decades, next generation sequencing (NGS) platforms have emerged as an extremely useful tool for detecting these variants. **Materials & methods:** In the present study, we report our NGS molecular records produced during a year of diagnostic activity. **Results:** Overall, our in-house developed NGS workflow successfully analyzed n = 116/131 (88.5%) NSCLC samples. Of these, eight (6.8%) and five (4.3%) out of 116 patients harbored ALK and RET gene rearrangements, respectively: one case harbored ROS1 gene fusion (0.7%). **Conclusion:** Our results highlight that an RNA-based NGS analysis can reliably detect gene fusion alterations, thereby playing a pivotal role in the management of NSCLC patients.

Indexado en: PubMed

Pedraz-Valdunciel C, Giannoukakos S, Potie N, **Giménez-Capitán A**, Huang CY, Hackenberg M, Fernandez-Hilario A, **Bracht J**, Filipiska M, **Aldeguer E, Rodríguez S**, Bivona TG, Warren S, **Aguado C**, Ito M, **Aguilar-Hernández A, Molina-Vila MA, Rosell R**.

Digital multiplexed analysis of circular RNAs in FFPE and fresh non-small cell lung cancer specimens.

Mol Oncol. 2022 Jun;16(12):2367-2383. doi: 10.1002/1878-0261.13182

Although many studies highlight the implication of circular RNAs (circRNAs) in carcinogenesis and tumor progression, their potential as cancer biomarkers has not yet been fully explored in the clinic due to the limitations of current quantification methods. Here, we report the use of the nCounter platform as a valid technology for the analysis of circRNA expression patterns in non-small cell lung cancer (NSCLC) specimens. Under this context, our custom-made circRNA panel was able to detect circRNA expression both in NSCLC cells and formalin-fixed paraffin-embedded (FFPE) tissues. CircFUT8 was overexpressed in NSCLC, contrasting with circEPB41L2, circBNC2, and circSOX13 downregulation even at the early stages of the disease. Machine learning (ML) approaches from different paradigms allowed discrimination of NSCLC from nontumor controls (NTCs) with an 8-circRNA signature. An additional 4-circRNA signature was able to classify early-stage NSCLC samples from NTC, reaching a maximum area under the ROC curve (AUC) of 0.981. Our results not only present two circRNA signatures with diagnosis potential but also introduce nCounter processing following ML as a feasible protocol for the study and development of circRNA signatures for NSCLC.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.449

JCR Categoría: Oncology

Posición: 51/245

Q1

Pérez-García JM, Batista MV, Cortez P, Ruiz-Borrego M, Cejalvo JM, de la Haba-Rodríguez J, Garrigós L, Racca F, Servitja S, Blanch S, Gion M, Nave M, Fernández-Abad M, Martínez-Bueno A, Llombart-Cussac A, Sampayo-Cordero M, Malfettone A, Cortés J, Braga S.

Trastuzumab Deruxtecan in Patients with Central Nervous System Involvement from HER2-Positive Breast Cancer: The DEBBRAH Trial.

Neuro Oncol. 2022 May 26;noac144. doi: 10.1093/neuonc/noac144. Online ahead of print.

BACKGROUND: Trastuzumab deruxtecan (T-DXd) has shown durable antitumor activity in pretreated patients with HER2-positive advanced breast cancer (ABC), but its efficacy has not yet been evaluated in patients with active brain metastases (BMs). DEBBRAH aims to assess T-DXd in patients with HER2-positive or HER2-low ABC and central nervous system involvement. **METHODS:** This ongoing, five-cohort, phase II study (NCT04420598) enrolled patients with pretreated HER2-positive or HER2-low ABC with stable, untreated, or progressing BMs and/or leptomeningeal carcinomatosis. Here, we report findings from HER2-positive ABC patients with non-progressing BMs after local therapy (n=8; cohort 1), asymptomatic untreated BMs (n=4; cohort 2), or progressing BMs after local therapy (n=9; cohort 3). Patients received 5.4 mg/kg T-DXd intravenously once every 21 days. The primary endpoint was 16-week progression-free survival (PFS) for cohort 1 and intracranial overall response rate (ORR-IC) for cohorts 2 and 3. **RESULTS:** As of October 20, 2021, 21 patients received T-DXd. In cohort 1, 16-week PFS rate was 87.5% (95%CI, 47.3-99.7; P<.001). ORR-IC was 50.0% (95%CI, 6.7-93.2) in cohort 2 and 44.4% (95%CI, 13.7-78.8; P<.001) in cohort 3. Overall, the ORR-IC in patients with active BMs was 46.2% (95%CI, 19.2-74.9). Among patients with measurable intracranial or extracranial lesions at baseline, the ORR was 66.7% (12 out of 18 patients; 95%CI, 41.0-86.7), 80.0% (95%CI, 28.4-99.5) in cohort 1, 50.0% (95%CI, 6.7-93.2) in cohort 2, and 66.7% (95%CI, 29.9-92.5) in cohort 3. All responders had partial responses. The most common adverse events included fatigue (52.4%; 4.8% grade≥3), nausea (42.9%; 0% grade≥3), neutropenia (28.6%; 19% grade≥3), and constipation (28.6%; 0% grade≥3). Two (9.5%) patients suffered grade 1 interstitial lung disease/pneumonitis. **CONCLUSIONS:** T-DXd showed intracranial activity with manageable toxicity and maintained quality of life in pretreated HER2-positive ABC patients with stable, untreated, or progressing BMs. Further studies are needed to validate these results in larger cohorts.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 13.029

JCR Categoría: Oncology; Clinical Neurology

Posición: Clinical Neurology 8/211; Oncology 21/245

Q1

Provencio M, Serna-Blasco R, 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, Calvo V, Martín-López J, García-García F, Casarrubios M, Franco F, Sánchez-Herrero E, Massuti B, Cruz-Bermúdez A, Romero A.

Overall Survival and Biomarker Analysis of Neoadjuvant Nivolumab Plus Chemotherapy in Operable Stage IIIA Non-Small-Cell Lung Cancer (NADIM phase II trial).

J Clin Oncol. 2022 May 16;JCO2102660. doi: 10.1200/JCO.21.02660. Online ahead of print.

PURPOSE: Neoadjuvant chemotherapy plus nivolumab has been shown to be effective in resectable non-small-cell lung cancer (NSCLC) in the NADIM trial (ClinicalTrials.gov identifier: NCT03081689). The 3-year overall survival (OS) and circulating tumor DNA (ctDNA) analysis have not been reported. **METHODS:** This was an open-label, multicenter, single-arm, phase II trial in which patients with stage IIIA NSCLC, who were deemed to be surgically resectable, were treated with neoadjuvant paclitaxel (200 mg/m² once a day) and carboplatin (area

under curve 6) plus nivolumab (360 mg) once on day 1 of each 21-day cycle, for three cycles, followed by adjuvant nivolumab monotherapy for 1 year (240 mg once every 2 weeks for 4 months, followed by 480 mg once every 4 weeks for 8 months). The 3-year OS and ctDNA analysis were secondary objectives of the trial. **RESULTS:** OS at 36 months was 81.9% (95% CI, 66.8 to 90.6) in the intention-to-treat population, rising to 91.0% (95% CI, 74.2 to 97.0) in the per-protocol population. Neither tumor mutation burden nor programmed cell death ligand-1 staining was predictive of survival. Conversely, low pretreatment levels of ctDNA were significantly associated with improved progression-free survival and OS (hazard ratio [HR]: 0.20; 95% CI, 0.06 to 0.63, and HR: 0.07; 95% CI, 0.01 to 0.39, respectively). Clinical responses according to RECIST v1.1 criteria did not predict survival outcomes. However, undetectable ctDNA levels after neoadjuvant treatment were significantly associated with progression-free survival and OS (HR: 0.26; 95% CI, 0.07 to 0.93, and HR: 0.04; 95% CI, 0.00 to 0.55, respectively). The C-index to predict OS for ctDNA levels after neoadjuvant treatment (0.82) was superior to that of RECIST criteria (0.72). **CONCLUSION:** The efficacy of neoadjuvant chemotherapy plus nivolumab in resectable NSCLC is supported by 3-year OS. ctDNA levels were significantly associated with OS and outperformed radiologic assessments in the prediction of survival.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 50.769 **JCR Categoría:** Oncology **Posición:** 6/245

Q1

Raez LE, Arrieta O, Chamorro DF, Soberanis-Piña PD, Corrales L, Martín C, Cuello M, Samtani S, Recondo G, Mas L, Zatarain-Barrón ZL, Ruíz-Patiño A, García-Robledo JE, Ordoñez-Reyes C, Jaller E, Dickson F, Rojas L, Rolfo C, Rosell R, Cardona AF.

Durvalumab After Chemoradiation for Unresectable Stage III Non-Small Cell Lung Cancer: Inferior Outcomes and Lack of Health Equity in Hispanic Patients Treated With PACIFIC Protocol (LA1-CLICaP).

Front Oncol. 2022 Jul 12;12:904800. doi: 10.3389/fonc.2022.904800. eCollection 2022.

OBJECTIVES: To compare the rate disparity between outcomes (overall survival (OS), progression-free survival (PFS), and safety) of concurrent chemoradiation (cCRT) followed by durvalumab in two patient cohorts with locally advanced (LA) stage III non-small cell lung cancer (NSCLC), one non-Hispanic White (NHW), and the other Latin-American. **METHODS:** A multicenter retrospective study was performed, including 80 Hispanic and 45 NHW LA stage III NSCLC patients treated with cCRT followed by durvalumab. Both cohorts were analyzed in terms of main outcomes (OS, PFS, and safety) and compared between them and with the PACIFIC trial population outcomes. The efficacy-effectiveness gap was assessed using an efficacy-effectiveness (EE) factor that was calculated by dividing each cohort median overall survival by the corresponding reference OS from the PACIFIC trial. In both cohorts, results of PD-L1 testing were recorded, and the main outcomes were compared according to PD-1 expression levels ($\geq 50\%$, 1-49%, and $< 1\%$). **RESULTS:** For the entire population (N=125), the overall response rate (ORR) was 57.6% (N=72), and 18.4% (N=25) achieved stable disease. OS was 26.3 months (95%CI 23.9-28.6), and PFS was 20.5 months (95%CI 18.0-23.0). PFS assessed by ethnicity showed a median for the Hispanic population of 19.4 months (95%CI 16.4-22.5) and 21.2 months (95%CI 17.2-23.3; $p=0.76$) for the NHW group. OS by race showed a significant difference in favor of the NHW group, with a median OS of 27.7 months (95%CI 24.6-30.9) vs. 20.0 months (95%CI 16.4-23.5) for Hispanics. ($P=0.032$). Unadjusted 12-month and 24-month OS was 86.6% (95%CI 79.9-88.0) and 46.6% (95%CI 40.2-48.3) for NHW compared to 82.5% (95%CI 77.1-84.2) and 17.5% (95%CI 15.6-24.5) in Hispanics. NHW had an EE factor of 0.78 and Hispanics had 0.58, showing a reduction in survival versus NHW and PACIFIC of 20% and 42%, respectively. HR for the OS among NHWs and Hispanics was 1.53 (95%CI 1.12-1.71; $P=0.052$) and 2.31 (95%CI 1.76-2.49; $P=0.004$). Fifty-six patients (44.8%) had some degree of pneumonitis due to cCRT plus durvalumab. There was no difference in the proportion of pneumonitis according to race ($P=0.95$), and the severity of pneumonitis was not significantly different between Hispanics and NHWs ($P=0.41$). **CONCLUSIONS:** Among patients with LA stage III NSCLC, NHW had better survival outcomes when compared to Hispanics, with an OS that seems to favor the NHW population and with an EE factor that shows a shorter survival in Hispanics compared with NHW and with the PACIFIC trial group.

Copyright © 2022 Raez, Arrieta, Chamorro, Soberanis-Piña, Corrales, Martín, Cuello, Samtani, Recondo, Mas, Zatarain-Barrón, Ruíz-Patiño, García-Robledo, Ordoñez-Reyes, Jaller, Dickson, Rojas, Rolfo, Rosell and Cardona.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 5.738

JCR Categoría: Oncology

Posición: 78/245

Q2

Rodríguez-Abreu D, Cobo M, **García-Román S**, Viteri-Ramírez S, Jordana-Ariza N, García-Peláez B, Reguart N, **Aguilar A**, **Codony-Servat J**, **Drozdowskyj A**, **Molina-Vila MA**, d'Hondt E, **Rosell R**.

The EPICAL trial, a phase Ib study combining first line afatinib with anti-EGF vaccination in EGFR-mutant metastatic NSCLC.

Lung Cancer. 2022 Feb;164:8-13. doi: 10.1016/j.lungcan.2021.12.014. Epub 2021 Dec 23.

INTRODUCTION: Combination of anti-EGFR monoclonal antibodies or immune checkpoint inhibitors with TKIs has shown minimal benefit in EGFR mutant (EGFR-mut) NSCLC patients. Consequently, new combination approaches are needed. **PATIENTS AND METHODS:** The EPICAL was a single arm, phase 1b study to evaluate safety, tolerability and anti-tumor activity of first line afatinib combined with anti-EGF vaccination in advanced EGFR-mut patients. EGFR status and mutations in liquid biopsies were determined by reverse transcriptase-polymerase chain reaction; serum biomarkers by ELISA and Western blotting analysis. **RESULTS:** The assay enrolled 23 patients, 21 completed the anti-EGF immunization phase. Treatment was well tolerated and no serious adverse events (SAEs) related to the anti-EGF vaccine were reported. Objective response and disease control rates were 78.3% (95%CI = 53.6-92.5) and 95.7% (95%CI = 78.1-99.9), respectively. After a median follow-up of 24.2 months, median progression-free survival (PFS) was 14.8 months (95% CI = 9.5-20.1) and median overall survival (OS) 26.9 months (95% CI = 23.0-30.8). Among the 21 patients completing the immunization phase, PFS was 17.5 months (95% CI = 12.0-23.0) and OS 26.9 months (95% CI = 24.6-NR). At the end of the immunization phase, all 21 patients showed high serum titers of anti-EGF antibodies, while EGF levels had decreased significantly. Finally, treatment with fully immunized patient's sera inhibited the EGFR pathway in tumor cells growing in vitro. **CONCLUSIONS:** Combination treatment with an anti-EGF vaccine is well tolerated; induces a sustained immunogenic effect and might enhance the clinical efficacy of EGFR TKIs.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 5.705

JCR Categoría: Respiratory System; Oncology

Posición: Respiratory System 13/64; Oncology 73/242 (Q2)

Q1

Rojas L, Mayorga D, Ruíz-Patiño A, Rodríguez J, Cardona AF, Archila P, Avila J, Bravo M, Ricaurte L, Sotelo C, Arrieta O, Zatarain-Barrón ZL, Carranza H, Otero J, Vargas C, Barrón F, Corrales L, Martín C, Recondo G, Pino LE, Bermudez MA, Gamez T, Ordoñez-Reyes C, García-Robledo JE, de Lima VC, Freitas H, Santoyo N, Malapelle U, Russo A, Rolfo C, **Rosell R**; CLICaP.

Human papillomavirus infection and lung adenocarcinoma: special benefit is observed in patients treated with immune checkpoint inhibitors.

ESMO Open. 2022 Jun 23;7(4):100500. doi: 10.1016/j.esmoop.2022.100500. Online ahead of print.

BACKGROUND: Human papilloma virus (HPV) has been associated with the development and modulation of response in a series of neoplasms. In the case of lung adenocarcinoma, its role in etiology and pathogenesis is still controversial. Considering that this infection brings foreign epitopes, it could be of prognostic significance in patients with lung adenocarcinoma treated with immunotherapy. **METHODS:** In a retrospective cohort study we evaluated the presence of HPV genomic material in lung adenocarcinoma primary lesions with the INNO-LiPA platform. Viral replication was also evaluated by detecting the presence of oncoprotein E6/E7 messenger RNA (mRNA) by quantitative RT-PCR. To confirm possible hypotheses regarding viral oncogenesis, vascular

endothelial growth factor (VEGF) and hypoxia-inducible factor 1 (HIF1) were evaluated with stromal fibrosis and immunoscore. **RESULTS:** A total of 133 patients were included in the analysis, of whom 34 tested positive for HPV, reaching an estimated prevalence of 25.6% [95% confidence interval (CI) 18.2% to 32.9%]. E6/7 mRNA was identified in 28 out of the 34 previously positive cases (82.3%). In immune checkpoint inhibitor (ICI)-treated patients, the median overall survival reached 22.3 months [95% CI 19.4 months- not reached (NR)] for HPV-negative and was not reached in HPV-positive (HPV+) ones (95% CI 27.7-NR; P = 0.008). With regard to progression-free survival, HPV- patients reached a median of 9.2 months (95% CI 7.9-11.2 months) compared to 14.3 months (95% CI 13.8-16.4 months) when HPV was positive (P = 0.001). The overall response rate for HPV+ patients yielded 82.4% compared to 47.1% in negative ones. No differences regarding programmed death-ligand 1, VEGF, HIF1, stromal fibrosis, or immunoscore were identified. **CONCLUSIONS:** In patients with HPV+ lung adenocarcinoma, a significant benefit in overall response and survival outcomes is observed.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.883

JCR Categoría: Oncology

Posición: 57/245

Q1

Rosell R, Cardona AF, Arrieta O, González-Cao M.

Classification of atypical EGFR mutations in non-small-cell lung cancer.

Ann Oncol. 2022 Jun;33(6):571-573. doi: 10.1016/j.annonc.2022.03.010.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 51.769

JCR Categoría: Oncology

Posición: 5/245

Q1

Sisteré-Oró M, Wortmann DDJ, Andrade N, Aguilar A, Mayo de Las Casas C, Casabal FG, Torres S, Bona Salinas E, Raventos Soler L, Arcas A, Esparre C, Garcia B, Valarezo J, Rosell R, Güerri-Fernandez R, Gonzalez-Cao M, Meyerhans A.

Brief Research Report: Anti-SARS-CoV-2 Immunity in Long Lasting Responders to Cancer Immunotherapy Through mRNA-Based COVID-19 Vaccination.

Front Immunol. 2022 Jul 5;13:908108. doi: 10.3389/fimmu.2022.908108. eCollection 2022.

Cancer patients (CPs) have been identified as particularly vulnerable to SARS-CoV-2 infection, and therefore are a priority group for receiving COVID-19 vaccination. From the patients with advanced solid tumors, about 20% respond very efficiently to immunotherapy with anti-PD1/PD-L1 antibodies and achieve long lasting cancer responses. It is unclear whether an efficient cancer-specific immune response may also correlate with an efficient response upon COVID-19 vaccination. Here, we explored the antiviral immune response to the mRNA-based COVID-19 vaccine BNT162b2 in a group of 11 long-lasting cancer immunotherapy responders. We analysed the development of SARS-CoV-2-specific IgG serum antibodies, virus neutralizing capacities and T cell responses. Control groups included patients treated with adjuvant cancer immunotherapy (IMT, cohort B), CPs not treated with immunotherapy (no-IMT, cohort C) and healthy controls (cohort A). The median ELISA IgG titers significantly increased after the prime-boost COVID vaccine regimen in all cohorts (Cohort A: pre-vaccine = 900 (100-2700), 3 weeks (w) post-boost = 24300 (2700-72900); Cohort B: pre-vaccine = 300 (100-2700), 3 w post-boost = 8100 (300-72900); Cohort C: pre-vaccine = 500 (100-2700), 3 w post-boost = 24300 (300-72900)). However, at the 3 w post-prime time-point, only the healthy control group showed a statistically significant increase in antibody levels (Cohort A = 8100 (900-8100); Cohort B = 900 (300-8100); Cohort C = 900 (300-8100)) (P < 0.05). Strikingly, while all healthy controls generated high-level antibody responses after the complete prime-boost regimen (Cohort A = 15/15 (100%), not all CPs behaved alike [Cohort B = 12/14 (84'6%); Cohort C = 5/6 (83%)]. Their responses, including those of the long-lasting immunotherapy responders, were more variable (Cohort A: 3 w post-boost (median nAb titers = 95.32 (84.09-96.93), median Spike-specific IFN- γ response = 64 (24-150); Cohort B: 3 w post-boost (median nAb titers = 85.62 (8.22-97.19), median Spike-specific IFN- γ

response (28 (1-372); Cohort C: 3 w post-boost (median nAb titers = 95.87 (11.8-97.3), median Spike-specific IFN- γ response = 67 (20-84)). Two long-lasting cancer responders did not respond properly to the prime-boost vaccination and did not generate S-specific IgGs, neutralizing antibodies or virus-specific T cells, although their cancer immune control persisted for years. Thus, although mRNA-based vaccines can induce both antibody and T cell responses in CPs, the immune response to COVID vaccination is independent of the capacity to develop an efficient anti-cancer immune response to anti PD-1/PD-L1 antibodies.

Copyright © 2022 Sisteré-Oró, Wortmann, Andrade, Aguilar, Mayo de las Casas, Casabal, Torres, Bona Salinas, Raventos Soler, Arcas, Esparre, Garcia, Valarezo, Rosell, Güerri-Fernandez, Gonzalez-Cao and Meyerhans.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.786

JCR Categoría: Immunology

Posición: 33/161

Q1

MEDICINA INTERNA Y FAMILIAR

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: 3.200

Factor impacto medio x artículo: 3.200

Robert Olalla J.

¿Pandemia a causa de una pandemia?/ Pandemic due to a pandemic?

[Article in English, Spanish]

Med Clin (Barc). 2022 Jun 24;158(12):613-614. doi: 10.1016/j.medcli.2022.03.002.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.200

JCR Categoría: Medicine, General & Internal

Posición: 75/172

Q2

NEUMOLOGÍA

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: 11.022

Factor impacto medio x artículo: 11.022

Mullol J, Maldonado M, **Castillo JA**, Miguel-Blanco C, Dávila I, Domínguez-Ortega J, Blanco-Aparicio M.

Management of United Airway Disease focused on patients with asthma and chronic rhinosinusitis with nasal polyps: a systematic review.

J Allergy Clin Immunol Pract. 2022 May 11:S2213-2198(22)00484-6. doi: 10.1016/j.jaip.2022.04.039. Online ahead of print.

BACKGROUND: The clinical approach to upper and lower respiratory diseases from a joint perspective, known as united airway disease (UAD), is challenging for healthcare professionals due to a paucity of specific studies.

OBJECTIVE: This study reviews recent scientific evidence on the management of asthma and chronic rhinosinusitis with nasal polyps (CRSwNP) from an UAD perspective. **METHODS:** A systematic search of PubMed, Scopus and Web of Science was conducted for nine research questions, and studies published from January 2015 to July 2021 were included. Quality assessment was performed with the Critical Appraisal Skills Programme. **RESULTS:** In total, 32 publications met the inclusion criteria. Control of type 2 inflammation in UAD (reported in 9 studies) was associated with biological therapies, for which an impact on asthma, CRSwNP and/or aspirin/nonsteroidal anti-inflammatory drug-exacerbated respiratory disease (AERD/N-ERD) outcomes was described in 9 studies. However, there was a lack of scientific evidence on clinical and/or biochemical markers associated with response to biologics in patients with UAD. The benefit on corticosteroid reduction in patients receiving biologics was reported in 9 studies. Three publications reported a positive impact of surgery on asthma and/or CRSwNP outcomes, while the effect of biologics on reducing the need of surgery was consistent across six studies. **CONCLUSION:** Our results underscore an overall scarcity of scientific evidence on the treatment strategies for these frequent coexisting entities from an UAD approach, but also identifies several research gaps and unmet needs that should be addressed to ensure optimal diagnosis, management, and follow-up of these patients.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 11.022

JCR Categoría: Allergy; Immunology

Posición: Allergy 3/27; Immunology 22/161

Q1

NEUROCIRUGÍA

Nº Artículos indexados: 1

Journal Impact Factor™ – 2021: 1.532

Factor impacto medio x artículo: 1.532

De Martino L, Tresserras-Giné G, Quaglietta L, Spennato P, Errico M, Bifano D, Cinalli G.

Giant intracranial infantile myofibromatosis of the skull base: report of two cases.

Childs Nerv Syst. 2022 Apr;38(4):837-841. doi: 10.1007/s00381-021-05271-z. Epub 2021 Jul 9.

Infantile myofibromatosis is a rare and nonmalignant pediatric tumor of myofibroblastic origin that may occur in solitary or multifocal forms. Soft tissue of the head and neck, trunk, and extremities, skeleton, and viscera are usually involved. Intracranial involvement is reported to be extremely rare, and its clinical picture has been poorly characterized. We present two cases of giant infantile myofibromatosis of the skull base with intracranial involvement. The first case with prenatal diagnosis involved extensively the extradural space of the occipital region and was previously treated by chemotherapy for a previous diagnosis of hemangiopericytoma. Tumor was removed at the age of 5 months and no recurrence was observed during the 3-year follow-up. The second case in a 2-year-old baby involved the anterior cranial base, the nasal cavity, the right orbit, and presented massive involvement of the anterior cranial fossa. Surgery allowed complete removal and a recurrence-free period of 7 years after surgery. Treatment options for these unusual cases are presented and details of histological diagnosis are discussed.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 1.532 **JCR Categoría:** Clinical Neurology; Pediatrics; Surgery

Posición: Clinical Neurology 192/212; Pediatrics 107/130; Surgery 164/211

Q4

Kulisevsky J, Martínez-Horta S, Campolongo A, Pascual-Sedano B, Marín-Lahoz J, Bejr-Kasem H, Aracil-Bolaños I, Horta-Barba A, Puig-Davi A, Pagonabarraga J.

A Randomized Clinical Trial to Evaluate the Effects of Safinamide on Apathetic Non-demented Patients With Parkinson's Disease.

Front Neurol. 2022 Jun 2;13:866502. doi: 10.3389/fneur.2022.866502. eCollection 2022.

BACKGROUND: Apathy is highly prevalent and disabling in Parkinson's disease (PD). Pharmacological options for its management lack sufficient evidence. **OBJECTIVE:** We studied the effects of safinamide on apathy in PD. **METHODS:** Prospective, 24-week, two-site, randomized, double-blind, placebo-controlled, parallel-group exploratory study in non-demented PD on stable dopaminergic therapy randomized 1:1 to adjunct safinamide (50 mg/day for 2 weeks and 100 mg/day for 22 weeks) or placebo. The primary endpoint was the mean change from baseline to week 24 on the Apathy Scale (AS) total score. Secondary endpoints included changes in cognition, activities of daily living, motor scores, the impression of change, and safety and tolerability measures. **RESULTS:** In total, 30 participants (active treatment = 15; placebo = 15; 80% showing clinically significant apathetic symptoms according to the AS) were enrolled, and included in the intention-to-treat analysis. Change in AS (ANOVA) showed a trend to significance [$p = 0.059$] mediated by a more marked decrease in AS score with safinamide (-7.5 ± 6.9) than with placebo (-2.8 ± 5.7). Post-hoc analysis (paired t-test) showed a significant positive change in the AS score between 12-week and 24-week [$p = 0.001$] only in the active group. No significant or trend changes were found for any of the secondary outcome variables. Adverse events were few and only mild in both treatment groups. **CONCLUSIONS:** Safinamide was safe and well-tolerated, but failed to provide evidence of improved apathy. The positive trend observed in the post-hoc analyses deserves to be studied in depth in larger studies. **TRIAL REGISTRATION:** EudraCT 2017-003254-17.

Copyright © 2022 Kulisevsky, Martínez-Horta, Campolongo, Pascual-Sedano, Marín-Lahoz, Bejr-kasem, Aracil-Bolaños, Horta-Barba, Puig-Davi and Pagonabarraga.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.086 **JCR Categoría:** Neurosciences; Clinical Neurology

Posición: Clinical Neurology 88/212; Neurosciences 123/274

Q2

OBSTETRICIA I GINECOLOGIA SALUT DE LA DONA DEXEUS

Nº Artículos indexados: 27 Journal Impact Factor™ – 2021: Factor impacto medio x artículo:

Abella L, D'Adamo E, Strozzi M, Sanchez-de-Toledo J, Perez-Cruz M, Gómez O, Abella E, Cassinari M, Guaschino R, Mazzucco L, Maconi A, Testa S, Zanelli C, Perrotta M, Roberta P, Renata NC, Gasparroni G, Vitacolonna E, Chiarelli F, Gazzolo D.

S100B Maternal Blood Levels in Gestational Diabetes Mellitus Are Birthweight, Gender and Delivery Mode Dependent.

Int J Environ Res Public Health. 2022 Jan 18;19(3):1028. doi: 10.3390/ijerph19031028.

Gestational Diabetes Mellitus (GDM) is one of the main causes of perinatal mortality/morbidity. Today, a parameter offering useful information on fetal central nervous system (CNS) development/damage is eagerly awaited. We investigated the role of brain-protein S100B in the maternal blood of GDM pregnancies by means of a prospective case-control study in 646 pregnancies (GDM: n = 106; controls: n = 530). Maternal blood samples for S100B measurement were collected at four monitoring time-points from 24 weeks of gestation to term. Data was corrected for gender and delivery mode and correlated with gestational age and weight at birth. Results showed higher ($p < 0.05$) S100B from 24 to 32 weeks and at term in GDM fetuses than controls. Higher ($p < 0.05$) S100B was observed in GDM male new-borns than in females from 24 to 32 weeks and at term, in GDM cases delivering vaginally than by caesarean section. Finally, S100B positively correlated with gestational age and weight at birth ($R = 0.27$; $R = 0.37$, respectively; $p < 0.01$). The present findings show the usefulness of S100B in CNS to monitor high-risk pregnancies during perinatal standard-of-care procedures. The results suggest that further investigations into its potential role as an early marker of CNS growth/damage in GDM population are needed.

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)

Factor Impacto: 4.614

JCR Categoría: Public, Environmental & Occupational Health

Posición: Public, Environmental & Occupational Health 45/182

Q1

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.614 JCR Categoría: Environmental Sciences; Public, Environmental & Occupational Health

Posición: Environmental Sciences 100/279; Public, Environmental & Occupational Health 71/210

Q2

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). 2022 Feb;25(1):43-55. doi: 10.1080/14647273.2020.1769204. Epub 2020 Jun 2.

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/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.186 **JCR Categoría:** Reproductive Biology; Obstetrics & Gynecology

Posición: Reproductive Biology 25/31; Obstetrics & Gynecology 67/85

Q4

Alcázar JL, Eguez PM, Forcada P, Ternerero E, Martínez C, Pascual MÁ, Guerriero S.

Diagnostic accuracy of sliding sign for detecting pouch of Douglas obliteration and bowel involvement in women with suspected endometriosis: systematic review and meta-analysis.

Ultrasound Obstet Gynecol. 2022 Mar 15. doi: 10.1002/uog.24900. Online ahead of print.

OBJECTIVE: The aim of this meta-analysis is to evaluate the diagnostic accuracy of the sliding sign in transvaginal ultrasound (TVS) to detect pouch of Douglas obliteration (PoDo) and bowel involvement (BI) in patients with suspected endometriosis, using laparoscopy as the reference standard. **METHODS:** A search for studies evaluating the role of sliding sign for assessing PoDo and bowel involvement compared to surgery from January 2000 to October 2021 was performed in PubMed/MEDLINE, Web of Science, CINAHL, Cochrane, Clinicaltrial.gov and Scopus databases. The Quality Assessment of Diagnostic Accuracy Studies 2 evaluated the quality of the studies (QUADAS-2). All analyses were performed using MIDAS and METANDI commands. **RESULTS:** We identified 334 citations. After exclusions, eight studies comprising 938 (PoDo) and 963 (BI) women were included. Mean prevalence of PoDo was 37%. Mean prevalence of bowel involvement was 23%. The pooled estimated sensitivity, specificity, positive likelihood, negative likelihood ratio and diagnostic odd ratio of sliding sign in TVS for detecting PoDo were 88% (95% confidence interval [CI]=81%-93%), 94% (95% CI=91%-96%), 15.1 (95% CI=10.0-22.8), 0.12 (95% CI=0.07-0.21) and 124 (95% CI=62-245), respectively. Heterogeneity was moderate. The pooled estimated sensitivity, specificity, positive likelihood, negative likelihood ratio and diagnostic odd ratio of sliding sign in TVS for detecting bowel involvement were 81% (95% confidence interval [CI]=64%-91%), 95% (95% CI=91%-97%), 16.0 (95% CI= 9.0-28.6), 0.20 (95% CI= 0.10-0.40) and 81 (95% CI=34-191), respectively. Heterogeneity was moderate for both cases. **CONCLUSIONS:** The sliding sign in TVS has good diagnostic performance for predicting pouch of Douglas obliteration and bowel involvement in women with suspected endometriosis. This article is protected by copyright. All rights reserved.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.678 **JCR Categoría:** Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Bailón Queiruga M, Delgado-Morell A, Però Garcia M, Coll Girona S, Gich Saladich I, Porta Roda O.

What do female university students know about pelvic floor disorders? A cross-sectional survey.

Int Urogynecol J. 2022 Mar;33(3):659-664. doi: 10.1007/s00192-021-04828-5. Epub 2021 May 15.

INTRODUCTION AND HYPOTHESIS: Pelvic floor dysfunction (PFD) is common in women but few seek medical attention. Poor recognition of the condition as pathological and unawareness of treatments may account for low consultation rates. **METHODS:** This cross-sectional study was based on an online survey that was responded to in February and March 2020 by 768 female university students. Knowledge of PFD was assessed using the Prolapse and Incontinence Knowledge Questionnaire (PIKQ). Descriptive and inferential analyses were performed using IBM-SPSS (V26.0). **RESULTS:** Respondents had poor knowledge of PFD and especially of pelvic

organ prolapse. Health science students (n = 531; 69.1%) obtained significantly higher scores ($p < 0.001$) than other students (n = 237; 30.9%). Those who had received information on how to perform pelvic floor muscle training were more likely to score higher than those who had not received previous information. **CONCLUSIONS:** While health science students have better knowledge of PFD than other students, university students in general are little aware of PFD. Most students considered the issue of PFD to be important and wanted more information. Our findings may be useful in planning strategies to raise women's awareness of PFD and its prevention and treatment.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 1.932

JCR Categoría: Obstetrics & Gynecology; Urology & Nephrology

Posición: Obstetrics & Gynecology 73/85; Urology & Nephrology 70/90

Q4

Claramonte Nieto M, Mula Used R, Castellet Roig C, Rodríguez I, Rodríguez Melcon A, Serra Zantop B, Prats Rodríguez P.

Maternal and perinatal outcomes in women ≥ 40 years undergoing induction of labor compared with women < 35 years: Results from 4027 mothers.

J Obstet Gynaecol Res. 2022 Jun 25. doi: 10.1111/jog.15339. Online ahead of print.

AIM: Cesarean section is known to be increased with advanced maternal age in women undergoing induction of labor (IOL), but there is less information regarding other possible adverse maternal and fetal outcomes.

METHODS: Retrospective cohort study of singleton, nulliparous, at-term women undergoing IOL between January 2007 and September 2020. Outcomes studied were: cesarean section, failed induction rate, fetal distress, post-partum hemorrhage, post-partum hysterectomy, and need of transfusion. Neonatal variables analyzed were: Apgar score, umbilical cord pH, need of admission to neonatal intensive care unit, and mortality.

RESULTS: A total of 4027 women met the inclusion criteria; 1968 (48.9%) of mothers were < 35 years, 1283 (31.9%) were 35-39 years, 658 (16.3%) were 40-44 years, and 118 (2.9%) were ≥ 45 years. Results showed a significantly increased incidence of c-section in women ≥ 35 years, with an OR 1.79 (95% CI 1.50-2.14) for women 40-44 years and OR 3.95 (95% CI 2.66-5.98) for women ≥ 45 years. The main indication for cesarean delivery was failed IOL, and this risk was also significantly increased in women ≥ 40 years. These differences remained significant after adjustment for confounding factors. No other adverse maternal or fetal outcomes showed an association with age. **CONCLUSION:** Maternal age ≥ 40 years was associated with an increased risk of c-section after IOL at term compared with younger women, mainly because of failed induction, but no association with other adverse maternal or neonatal outcomes were found in our population. Risks and benefits of IOL in older women should be individually evaluated and adequately discussed with mothers.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 1.697

JCR Categoría: Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 78/85

Q4

Clua E, Rodríguez I, Arroyo G, Racca A, Martínez F, Polyzos NP.

Blastocyst versus cleavage embryo transfer improves cumulative live birth rates, time and cost in oocyte recipients: a randomized controlled trial.

Reprod Biomed Online. 2022 Jun;44(6):995-1004. doi: 10.1016/j.rbmo.2022.01.001.

RESEARCH QUESTION: Does embryo transfer day (day 5 versus day 3) affect cumulative live birth rates (CLBR), time to live birth (TLB) and cost per live birth (CPL) in recipients of donated oocytes? **STUDY DESIGN:** A single-centre RCT conducted between April 2017 and August 2018. Recipients of donated oocytes were randomized to

cleavage-stage (day 3) or to blastocyst-stage (day 5) embryo transfer. Eligible recipients were aged 18-50 years and in their first or second synchronous cycle. Primary outcome was CLBR (12 months from first embryo transfer), and fresh and subsequent cryopreserved transfers were considered; TLB and CPL were also analysed.

RESULTS: Recipients (n = 134) were randomized to the day-3 group (n = 69) or to the day-5 group (n = 65). Day-5 transfer resulted in a 15.9% relative increase in CLBR and a significant shorter TLB compared with day-3 transfer. To reach a 50% CLBR, the day-3 group required 6 months more than the day-5 group (15.3 versus 8.9 months, respectively). The average CPL in the day-3 strategy cost 24% more than the day-5 strategy (€14817.10 versus €10959.20). Clinical pregnancy rate was 25% less in the day-3 group. The trial was prematurely stopped after poor initial results in the day-3 arm led to unplanned interim analysis. **CONCLUSIONS:** The transfer of blastocyst-stage embryos in recipients of donated oocytes is preferred as it leads to a higher clinical pregnancy rate, live birth rate, shorter time to pregnancy and lower costs to achieve live birth, compared with cleavage-stage embryo transfer.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Coll L, Parriego M, Carrasco B, Rodríguez I, Boada M, Coroleu B, Polyzos NP, Vidal F, Veiga A.

The effect of trophoctoderm biopsy technique and sample handling on artefactual mosaicism.

J Assist Reprod Genet. 2022 Jun;39(6):1333-1340. doi: 10.1007/s10815-022-02453-9.

PURPOSE: To determine whether embryo mosaicism prevalence in preimplantation genetic testing for aneuploidy (PGT-A) cycles is associated with the trophoctoderm biopsy technique used (a. number of laser pulses or b. the use of flicking or pulling) or the time to tubing. **METHODS:** Prospective observational study performed in a single IVF-PGT-A setting from May 2019 to May 2021. Trophoctoderm biopsies were analysed by next-generation sequencing. Mosaicism was analysed in relation to the biopsy methodology (number of laser pulses and pulling vs flicking), time elapsed from biopsy to tubing (min), and time of sample cryostorage from tubing to amplification (days). As a secondary objective, the number of laser pulses and biopsy methodology were studied in relation to clinical outcomes of transferred euploid blastocysts. **RESULTS:** None of the analysed variables were associated to mosaicism prevalence. Multivariable regression analysis demonstrated that mosaicism prevalence was comparable either when > 3 laser pulses were used as compared to ≤ 3 (13.9% vs 13.8%, aOR = 0.8726 [0.60-1.28]) and pulling compared to flicking (13.1% vs 14.0%, aOR = 0.86 [0.60-1.23]). Moreover, neither the number of laser pulses during biopsy (> 3 vs ≤ 3) nor the technique used (pulling vs flicking) were associated with clinical pregnancy after the transfer of frozen-thawed euploid blastocysts (54.9% vs 55.2%, aOR = 1.05 [0.53-2.09]; 61.1% vs 52.9%, aOR = 1.11 [0.55-2.25], respectively). **CONCLUSION:** Our results suggest that, as long as the biopsy and tubing procedures are performed following standardized high quality procedures, no specific approach would increase the generation of artefactual mosaicism as a result of trophoctoderm biopsy. Trophoctoderm biopsies should be performed regardless of the methodology but always aiming on minimising blastocyst manipulation.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.357 **JCR Categoría:** Reproductive Biology; Obstetrics & Gynecology; Genetics & Heredity

Posición: Obstetrics & Gynecology 24/85; Reproductive Biology 16/31 (Q3) ; Genetics & Heredity 92/175 (Q3)

Q2

Conforti A, Tüttelmann F, Alviggi C, Behre HM, Fischer R, Hu L, **Polyzos NP**, Chuderland D, Rama Raju GA, D'Hooghe T, Simoni M, Sunkara SK, Longobardi S.

Effect of Genetic Variants of Gonadotropins and Their Receptors on Ovarian Stimulation Outcomes: A Delphi Consensus.

Front Endocrinol (Lausanne). 2022 Feb 1;12:797365. doi: 10.3389/fendo.2021.797365. eCollection 2021.

BACKGROUND: A Delphi consensus was conducted to evaluate the influence of single nucleotide polymorphisms (SNPs) in genes encoding gonadotropin and gonadotropin receptors on clinical ovarian stimulation outcomes following assisted reproductive technology (ART) treatment. **METHODS:** Nine experts plus two Scientific Coordinators discussed and amended statements plus supporting references proposed by the Scientific Coordinators. The statements were distributed via an online survey to 36 experts, who voted on their level of agreement or disagreement with each statement. Consensus was reached if the proportion of participants agreeing or disagreeing with a statement was >66%. **RESULTS:** Eleven statements were developed, of which two statements were merged. Overall, eight statements achieved consensus and two statements did not achieve consensus. The statements reaching consensus are summarized here. (1) SNP in the follicle stimulating hormone receptor (FSHR), rs6166 (c.2039A>G, p.Asn680Ser) (N=5 statements): Ser/Ser carriers have higher basal FSH levels than Asn/Asn carriers. Ser/Ser carriers require higher amounts of gonadotropin during ovarian stimulation than Asn/Asn carriers. Ser/Ser carriers produce fewer oocytes during ovarian stimulation than Asn/Asn or Asn/Ser carriers. There is mixed evidence supporting an association between this variant and ovarian hyperstimulation syndrome. (2) SNP of FSHR, rs6165 (c.919G>A, p.Thr307Ala) (N=1 statement): Few studies suggest Thr/Thr carriers require a shorter duration of gonadotropin stimulation than Thr/Ala or Ala/Ala carriers. (3) SNP of FSHR, rs1394205 (-29G>A) (N=1 statement): Limited data in specific ethnic groups suggest that A/A allele carriers may require higher amounts of gonadotropin during ovarian stimulation and produce fewer oocytes than G/G carriers. (4) SNP of FSH β -chain (FSHB), rs10835638 (-211G>T) (N=1 statement): There is contradictory evidence supporting an association between this variant and basal FSH levels or oocyte number. (5) SNPs of luteinizing hormone β -chain (LHB) and LH/choriogonadotropin receptor (LHCGR) genes (N=1 statement): these may influence ovarian stimulation outcomes and could represent potential future targets for pharmacogenomic research in ART, although data are still very limited. **CONCLUSIONS:** This Delphi consensus provides clinical perspectives from a diverse international group of experts. The consensus supports a link between some variants in gonadotropin/gonadotropin receptor genes and ovarian stimulation outcomes; however, further research is needed to clarify these findings.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto:6.055

JCR Categoría: Endocrinology & Metabolism

Posición: 33/146

Q1

Dagklis T, Sen C, Tsakiridis I, Villalaín C, Karel Allegaert, Wellmann S, Kusuda S, **Serra B**, Sanchez Luna M, Huertas E, Volpe N, Ayala R, Jekova N, Grunebaum A, Stanojevic M.

The use of antenatal corticosteroids for fetal maturation: clinical practice guideline by the WAPM-World Association of Perinatal Medicine and the PMF-Perinatal Medicine foundation.

J Perinat Med. 2022 Mar 11;50(4):375-385. doi: 10.1515/jpm-2022-0066.

This practice guideline follows the mission of the World Association of Perinatal Medicine in collaboration with the Perinatal Medicine Foundation, bringing together groups and individuals throughout the world, with the goal of improving the use of antenatal corticosteroids (ACS) for fetal maturation. In fact, this document provides further guidance for healthcare practitioners on the appropriate use of ACS with the aim to increase the timely administration and avoid unnecessary or excessive use. Therefore, it is not intended to establish a legal standard

of care. This document is based on consensus among perinatal experts throughout the world and serves as a guideline for use in clinical practice.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.716

JCR Categoría: Pediatrics; Obstetrics & Gynecology

Posición: Pediatrics 61/130; Obstetrics & Gynecology 50/85 (Q3)

Q2

Devesa M, Racca A, Clúa E, Casato C, García S, Polyzos NP, Martínez F.

Progesterone-primed ovarian stimulation in oocyte donation: a model for elective fertility preservation?

Reprod Biomed Online. 2022 Jun;44(6):1015-1022. doi: 10.1016/j.rbmo.2022.02.003.

RESEARCH QUESTION: Does type of LH peak suppression (progesterone-primed ovarian stimulation [PPOS] versus gonadotrophin releasing hormone [GnRH] antagonist) affect oocyte competence, embryo development and live birth rates in recipients of vitrified donated oocytes? **DESIGN:** Retrospective cohort study conducted between 2016 and 2018, involving 187 recipient cycles of donated vitrified oocytes. Oocyte donors were stimulated under LH suppression with desogestrel for PPOS (DSG group) or ganirelix GnRH antagonist (ANT group). Recipients younger than 50 years received vitrified oocytes from DSG donation cycles (DSG-R) or ANT donation cycles (ANT-R). **RESULTS:** A mean of 10.07 ± 3.54 oocytes per recipient were warmed (survival rate of 80.7%), and 5.90 ± 2.89 were fertilized (fertilization rate 72.6%). Out of 187 recipients, 168 achieved embryo transfers. No significant differences were found in warming survival rates, fertilization rates and embryo development between DSG-R and ANT-R groups. Ninety-four clinical pregnancies and 81 live births were achieved. No statistically significant differences were found in clinical pregnancy rates (47.7% versus 52.5, $P = 0.513$) and live birth rates (39.5% versus 46.5%, $P = 0.336$) per recipient cycle between DSG-R and ANT-R, respectively. Multivariable logistic regression was applied to assess the effect of treating oocyte donors. Live birth rate adjusted for associated factors was not statistically different between vitrified oocytes from DSG or ANT (OR 0.74, 95% CI 0.37 to 1.47). **CONCLUSION:** Reproductive outcomes of recipients of vitrified oocytes are not affected by donor PPOS treatment. PPOS is suitable for suppressing LH peak in elective fertility preservation and in freeze-all strategies.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Di Guardo F, **Racca A**, Coticchio G, Borini A, Drakopoulos P, Mackens S, Tournaye H, Verheyen G, Blockeel C, Van Landuyt L.

Impact of cell loss after warming of human vitrified day 3 embryos on obstetric outcome in single frozen embryo transfers.

J Assist Reprod Genet. 2022 Jul 20. doi: 10.1007/s10815-022-02572-3. Online ahead of print.

PURPOSE: Does cell loss (CL) after vitrification and warming (V/W) of day 3 embryos have an impact on live birth rate (LBR) and neonatal outcomes? **METHOD:** This retrospective analysis includes cleavage stage day 3 embryos vitrified/warmed between 2011 and 2018. Only single vitrified/warmed embryo transfers were included. Pre-implantation genetic screening, oocyte donation, and age banking were excluded from the analysis. The sample was divided into two groups: group A (intact embryo after warming) and group B ($\leq 50\%$ blastomere loss after warming). **RESULTS:** On the total embryos ($n = 2327$), 1953 were fully intact (83.9%, group A) and 374 presented cell damage (16.1%, group B). In group B, 62% (232/374) of the embryos had lost only one cell. Age at

cryopreservation, cause of infertility, insemination procedure, and semen origin were comparable between the two groups. The positive hCG rate (30% and 24.3%, respectively, for intact vs CL group, $p = 0.028$) and LBR (13.7% and 9.4%, respectively, for intact vs CL group, $p = 0.023$) per warming cycle were significantly higher for intact embryos. However, LBR per positive hCG was equivalent between intact and damaged embryos (45.6% vs 38.5%, respectively, $p = 0.2$). Newborn measurements (length, weight, and head circumference at birth) were comparable between the two groups. Multivariate logistic regression showed that the presence of CL is not predictive for LB when adjusting for patients' age. **CONCLUSIONS:** LBR is significantly higher after transfer of an intact embryo compared to an embryo with CL after warming; however, neonatal outcomes are comparable between the two groups.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.357 **JCR Categoría:** Reproductive Biology; Obstetrics & Gynecology; Genetics & Heredity

Posición: Obstetrics & Gynecology 24/85; Reproductive Biology 16/31 (Q3) ; Genetics & Heredity 92/175 (Q3)

Q2

Drakopoulos P, Di Guardo F, **Polyzos NP.**

Is mild stimulation the way forward?

Reprod Biomed Online. 2022 Feb 28:S1472-6483(22)00128-6. doi: 10.1016/j.rbmo.2022.02.019. Online ahead of print.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567 **JCR Categoría:** Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Franasiak JM, **Polyzos NP, Neves AR,** Yovich JL, Ho TM, Vuong LN, Norman RJ.

Intracytoplasmic sperm injection for all or for a few?

Fertil Steril. 2022 Feb;117(2):270-284. doi: 10.1016/j.fertnstert.2021.12.001.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.490 **JCR Categoría:** Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 6/85; Reproductive Biology 2/31

Q1

Garcia-Alfaro P, Rodriguez I, Pascual MA.

Evaluation of the relationship between homocysteine levels and bone mineral density in postmenopausal women.

Climacteric. 2022 Apr;25(2):179-185. doi: 10.1080/13697137.2021.1921729. Epub 2021 May 13.

OBJECTIVE: The current study aimed to evaluate the relationship between homocysteine (Hcy) levels and bone mineral density (BMD) in postmenopausal women. **METHODS:** The present, cross-sectional study included 760 postmenopausal women. The following variables were recorded: age, age at menopause, body mass index (BMI), BMD (measured by dual-energy X-ray absorptiometry [DXA] scanning and expressed as lumbar, femoral neck and total hip T-scores), smoking status, biochemical parameters (Hcy, creatinine, calcium, phosphorus, vitamin D and parathormone levels) and vitamin D supplementation. **RESULTS:** The mean age of the sample population was 56.4 ± 5.77 years and the mean age at menopause was 49.9 ± 3.62 years. The mean BMI was 25.2 ± 4.49 kg/m². In the current study, a comparison of the subjects with osteoporosis, osteopenia and normal BMD revealed that the subjects in the low BMD group were significantly older ($p < 0.001$), had a lower age at menopause ($p < 0.001$) and had lower BMI ($p < 0.001$). There was no statistically significant difference among the groups with regard to the plasma levels of Hcy ($p = 0.946$). The levels of Hcy were positively correlated to the

creatinine levels ($r = 0.21$). The present study did not observe any significant correlations between the Hcy levels and other parameters. **CONCLUSIONS:** In the present study, 15.3% of the subjects had hyperhomocysteinemia and 62.11% had low BMD. The current results obtained from a group of postmenopausal women suggest that the plasma levels of Hcy are not related to BMD in the lumbar spine (L1-L4), femoral neck and total hip. In the current study, age, age at menopause and low BMI were observed to be associated with low BMD.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.024

JCR Categoría: Obstetrics & Gynecology

Posición: 41/85

Q2

García-Alfaro P, Rodríguez I, Pérez-López FR.

Plasma homocysteine levels and handgrip strength in postmenopausal women.

Climacteric. 2022 May 9:1-6. doi: 10.1080/13697137.2022.2068409. Online ahead of print.

OBJECTIVE: This study evaluated handgrip strength (HGS), circulating homocysteine levels and related factors in postmenopausal women. **METHODS:** This study is a sub-analysis of a prospective cohort of 303 postmenopausal women aged 62.7 ± 6.9 years who had HGS measures with a digital dynamometer as the primary outcome, and plasma homocysteine and creatinine levels and glomerular filtration rate (GFR) measures as the secondary outcomes. **RESULTS:** The average HGS was 22.5 ± 4.0 kg, 29.4% of women had dynapenia (HGS < 20 kg), adiposity was $40.3 \pm 5.4\%$ and 9.57% of women had hyperhomocysteinemia (homocysteine >15 $\mu\text{mol/l}$). There were no differences between tertiles of homocysteine and HGS ($p = 0.641$). Plasma homocysteine levels were unrelated to HGS ($r = -0.06$) and correlated with age ($r = 0.17$), GFR ($r = -0.28$) and creatinine ($r = 0.23$). Hyperhomocysteinemia was not associated with HGS (odds ratio [OR] = 0.98 [95% confidence interval (CI): 0.89; 1.08]) or dynapenia (OR = 1.10 [95% CI: 0.45; 2.47]). The risk of presenting low HGS were not significantly associated with homocysteine (OR = -0.08 [95% CI: -0.21; 0.06]) and were associated with age (OR = -0.23 [95% CI: -0.29; -0.17]), adiposity (OR = -6.52 [95% CI: -9.53; -3.50]) and creatinine (OR = 6.22 [95% CI: 2.48; 9.97]). **CONCLUSIONS:** HGS and dynapenia were unrelated to hyperhomocysteinemia. Age, GFR and creatinine were significantly associated with plasma homocysteine levels.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.024

JCR Categoría: Obstetrics & Gynecology

Posición: 41/85

Q2

García-García I, Alcázar JL, Rodríguez I, Pascual MA, García-Tejedor A, Guerriero S.

Recurrence Rate and Morbidity after Ultrasound-guided Transvaginal Aspiration of Ultrasound Benign-appearing Adnexal Cystic Masses with and without Sclerotherapy: A Systematic Review and Meta-analysis.

J Minim Invasive Gynecol. 2022 Feb;29(2):204-212. doi: 10.1016/j.jmig.2021.09.708. Epub 2021 Sep 24.

OBJECTIVE: To determine the pooled recurrence rate of benign adnexal masses/cysts (namely simple cyst, endometrioma, hydrosalpinx, peritoneal cyst) after transvaginal ultrasound-guided aspiration, with or without sclerotherapy. **DATA SOURCES:** Search of studies published in PubMed and Web of Science databases between January 1990 and December 2020. **METHODS OF STUDY SELECTION:** A systematic search strategy was done using Medical Subject Heading terms. Only randomized trials and prospective studies published in English language were included. **TABULATION, INTEGRATION, AND RESULTS:** A total of 395 articles were screened. After applying inclusion and exclusion criteria, 20 studies were included in this review comprising data from 1386 patients with a mean follow-up of 11.4 months (range 0.5-26.5 months). The overall pooled rate of recurrence of adnexal masses was 27%, (95% confidence interval [CI], 18%-39%). Recurrence rate was significantly higher after only aspiration than after sclerotherapy (53%; 95% CI, 46%-60% vs 14%; 95% CI, 8%-22%; $p < .001$). However, a high heterogeneity across the studies was found. A total of 10 major complications were recorded in the different publications. **CONCLUSION:** In a selected population, aspiration with sclerotherapy had a lower recurrence rate than aspiration without sclerotherapy. However, these results should

be interpreted with caution given the heterogeneity of the studies and the paucity of randomized controlled trials. Regarding the adoption of this procedure in routine clinical practice, we believe that aspiration should be considered an experimental procedure as there are few studies addressing long-term recurrence rate, and data comparing this technique with surgical cystectomy are lacking.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.314

JCR Categoría: Obstetrics & Gynecology

Posición: 18/85

Q1

Garde I, Paredes C, Ventura L, **Pascual MA**, Ajossa S, Guerriero S, Vara J, Linares M, Alcázar JL.

Diagnostic accuracy of different ultrasound signs for detecting adnexal torsion: systematic review and meta-analysis.

Ultrasound Obstet Gynecol. 2022 Jun 25. doi: 10.1002/uog.24976. Online ahead of print.

OBJECTIVE: To evaluate the diagnostic accuracy of different ultrasound signs for diagnosing adnexal torsion (AT), using surgery as the reference standard. **METHODS:** A search was performed in PubMed/MEDLINE, CINAHL, Scopus, Cochrane, ClinicalTrials.gov and Web of Science databases (January 1990 to November 2021) for studies evaluating the presence of ovarian edema, an adnexal mass, Doppler flow findings and the whirlpool sign as ultrasound signs (index tests) for detecting AT, using surgical findings as reference standard. The Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool was used to evaluate the quality of the studies. Pooled sensitivity, specificity, positive and negative likelihood ratios were calculated separately, and the post-test probability of AT following a positive or negative test also was determined. **RESULTS:** The search identified 1267 citations after excluding duplicates. Twenty studies were ultimately included in the qualitative and quantitative syntheses. Ten studies, comprising 983 patients, analyzed ovarian edema. Eleven studies, comprising 1295 patients, analyzed the presence of adnexal mass. Fifteen studies, comprising 2212 patients, analyzed the Doppler flow. Finally, seven studies, comprising 654 patients, analyzed whirlpool sign. Overall, quality was considered as moderate or good for most studies. However, there is a high risk of bias in Patient Selection and Index text (except for whirlpool sign) in a significant proportion of studies. Pooled sensitivity, specificity and positive and negative likelihood ratios of each ultrasound sign were 58%, 86%, 4.0 and 0.49 for ovarian edema, 69%, 43%, 1.3 and 0.67 for adnexal mass, 65%, 92%, 8.0 and 0.38 for whirlpool sign, 53%, 95%, 11.0 and 0.49 for Doppler findings and 55%, 69%, 1.7 and 0.66 for pelvic fluid. Heterogeneity was high for all them. **CONCLUSION:** Diagnostic accuracy of the presence of an adnexal mass or pelvic fluid as ultrasound signs for suspecting an adnexal torsion is moderate, while the presence of ovarian edema, whirlpool sign and decreased or absent Doppler flow show good specificity. This article is protected by copyright. All rights reserved.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Graupera B, Pascual MÁ, Guerriero S, Browne JL, Valero B, Ajossa S, Springer S, Alcázar JL.

Extra-Gynecological Pelvic Pathology: A Challenge in the Differential Diagnosis of the Female Pelvis. Diagnostics (Basel). 2022 Jul 12;12(7):1693. doi: 10.3390/diagnostics12071693.

Ultrasound technology with or without color Doppler allows a real-time evaluation of the entire female pelvis including gynecological and non-gynecological organs, as well as their pathology. As ultrasound is an accurate tool

for gynecological diagnosis and is less invasive and less expensive than other techniques, it should be the first imaging modality used in the evaluation of the female pelvis. We present a miscellany of non-gynecological pelvic images observed during the realization of gynecological ultrasound. Transvaginal and transabdominal ultrasound is the first choice among diagnostic techniques for the study of the female pelvis, providing information about gynecological and extra-gynecological organs, allowing for an orientation toward the pathology of a specific organ or system as well as for additional tests to be performed that are necessary for definitive diagnosis.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 3.992

JCR Categoría: Medicine, General & Internal

Posición: 60/172

Q2

Guerriero S, Pascual M, Ajossa S, Neri M, Pilloni M, Graupera B, Rodriguez I, Alcazar JL.

The Reproducibility of Ultrasonographic Findings of Rectosigmoid Endometriosis Among Examiners With Different Level of Expertise.

J Ultrasound Med. 2022 Feb;41(2):403-408. doi: 10.1002/jum.15717. Epub 2021 Apr 10.

OBJECTIVE: To analyze the reproducibility of ultrasonographic (US) findings of rectosigmoid endometriosis among examiners with different level of expertise using stored three-dimensional (3D) volumes of the posterior compartment of the pelvis as a part of SANABA (Sardinia-Navarra-Barcelona) collaborative study. **MATERIALS AND METHODS:** Six examiners in 3 academic Department of Obstetrics and Gynecology, with different levels of experience and blinded to each other, evaluated 60 stored 3D volumes from the posterior compartment of the pelvis and looked for the presence or absence of features of rectosigmoid endometriotic lesions defined as an irregular hypoechoic nodule with or without hypoechoic foci at the level of the muscularis propria of the anterior wall rectum sigma. Multiplanar view and virtual navigation were used. All examiners had to assess the 3D volume of posterior compartment of the pelvis and classify it as present or absent disease. To analyze intra-observer and the inter-observer agreements, each examiner performed the assessment twice with a 2-week interval between the first and second assessments. Reproducibility was assessed by calculating the weighted Kappa index. **RESULTS:** Intra-observer reproducibility was moderate to very good for all observers (Kappa index ranging from 0.49 to 0.96) associated with a good diagnostic accuracy of each reader. Inter-observer reproducibility was fair to very good (Kappa index range: 0.21-0.87). **CONCLUSIONS:** The typical US sign of rectosigmoid endometriosis is reasonably recognizable to observers with different level of expertise when assessed in stored 3D volumes.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.754

JCR Categoría: Radiology, Nuclear Medicine & Medical Imaging; Acoustics

Posición: Acoustics 10/32; Radiology, Nuclear Medicine & Medical Imaging 85/136 (Q3)

Q2

Heremans R, Van den Bosch T, Valentin L, Wynants L, Pascual MA, Fruscio R, Testa AC, Buonomo F, Guerriero S, Epstein E, Bourne T, Timmerman D, Leone FPG.

Ultrasound features of endometrial pathology in women without abnormal uterine bleeding: results from the International Endometrial Tumor Analysis Study (IETA3).

Ultrasound Obstet Gynecol. 2022 Aug;60(2):243-255. doi: 10.1002/uog.24910.

OBJECTIVES: The primary aim is to describe the ultrasound features of various endometrial and other intracavitary pathologies in women without abnormal uterine bleeding (AUB) using the International Endometrial Tumor Analysis (IETA) terminology. The secondary aim is to compare our findings with published data on women with AUB. **METHODS:** Patients presenting in seven ultrasound centers from 2011 until 2018 for

indications unrelated to abnormal vaginal bleeding underwent transvaginal ultrasound examination using the IETA examination technique and measurement technique. The ultrasonography was performed either as part of routine gynecological examination, follow-up of non-endometrial pathology, or in the workup before undergoing treatment for infertility, uterine prolapse or ovarian pathology. Ultrasound findings were described using IETA terminology. Findings were compared to those in a published cohort of women with AUB who were examined with transvaginal ultrasound between 2012 and 2015 using the same IETA examination technique and terminology. **RESULTS:** The IETA3 study includes 1745 women without vaginal bleeding who underwent a standardized transvaginal ultrasound examination followed by either endometrial sampling with histological diagnosis (n = 1537) or at least 1 year of clinical and ultrasound follow-up (n = 208). 858 women were premenopausal (49%), and 887 women were postmenopausal (51%). Histology showed endometrial cancer (EC) and/or endometrial intraepithelial neoplasia (EIN) in 29 (2%) women, endometrial polyps in 1028 (59%), intracavitary myomas in 66 (4%), proliferative or secretory changes or hyperplasia without atypia in 144 (8%), endometrial atrophy in 265 (15%) and insufficient tissue in 5 (0.3%). Most EC and EIN (25/29; 86%) were diagnosed after menopause. The mean endometrial thickness in women with EC or EIN was 11.2mm (95% confidence interval [CI]: 8.9 to 13.6), which made them on average 2.5mm (95% CI: +0.3 to +4.6) thicker than their benign counterparts. Malignant endometria more frequently manifested non-uniform echogenicity (22/29; 76%) than benign endometria (929/1716; 54%) (difference +21.8%; 95% CI: +4.2 to +39.2). Of EC and EIN, 31% (9/29) showed moderate to abundant vascularization (color score 3-4) compared to 13% (220/1716) of benign outcomes (difference +18.2%; 95%CI: -0.5 to +36.9), and multiple multifocal vessels were recorded in 24% (7/29) versus in 4% (68/1716) (difference +20.2%; 95%CI: +4.6 to +35.7). A regular endometrial-myometrial border was less frequently seen in women with EC and/or EIN (19/29; 66%) vis-à-vis benign outcomes (1412/1716; 82%) (difference 16.8%; -34.2 to +0.6). A single dominant vessel was the most frequent vascular pattern in asymptomatic endometrial polyps (666/1028; 65%). Both in women with and without AUB malignant endometria usually manifested heterogeneous echogenicity, but malignant endometria were on average 8.6mm (95% CI 5.2 to 12) thinner in women without AUB and less intensely vascularized (difference in color score 3-4: 26.8%; 95%CI: 1.3 to 52.2). Asymptomatic endometrial polyps, both in pre- and postmenopausal women, were associated with thinner endometrium, and they more frequently manifested a bright edge, a regular endo-myometrial junction, and a single dominant vessel than polyps in symptomatic women and they were less intensely vascularized. **CONCLUSION:** We describe the typical ultrasound features of endometrial cancer, polyps, and other intracavitary histologies using IETA terminology in women without AUB. Our results suggest that asymptomatic polyps and endometrial malignancies may present with thinner and less intensely vascularized endometria than their symptomatic counterparts. This article is protected by copyright. All rights reserved.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Leonardi M, Uzuner C, Mestdagh W, Lu C, Guerriero S, Zajicek M, Dueckelmann A, Filippi F, Buonomo F, Pascual MA, Stepniewska A, Ceccaroni M, Van den Bosch T, Timmerman D, Hudelist G, Condous G.

International and multicenter prospective diagnostic accuracy of transvaginal ultrasound for endometriosis using the International Deep Endometriosis Analysis (IDEA) terminology: pilot study.

Ultrasound Obstet Gynecol. 2022 May 13. doi: 10.1002/uog.24936. Online ahead of print.

OBJECTIVES: To evaluate the diagnostic accuracy of transvaginal ultrasound (TVS) to predict ovarian endometriomas (OE), overall deep endometriosis (DE), and DE locations by following the International Deep Endometriosis Analysis (IDEA) consensus statement. **METHODS:** This was an international, multicenter

prospective diagnostic accuracy study involving eight centers across six countries (August 2018-November 2019). Consecutive participants were enrolled. Only participants with suspected endometriosis based on clinical symptoms or historical diagnosis of endometriosis were included. The index test was TVS performed pre-operatively in accordance with the IDEA consensus statement. At each center, the index test was interpreted by a single sonologist. The reference standards used were 1) direct visualization of endometriosis at laparoscopy as determined by a non-blinded surgeon with expertise in endometriosis surgery and 2) histological assessment of biopsied/excised tissue. All surgeries were performed within 12 months of the index test TVS. Accuracy (Acc), sensitivity (Sens), specificity (Spec), positive and negative predictive values (PPV/NPV), and positive and negative likelihood ratios (LR+/LR-) of TVS were measured. **RESULTS:** 273 participants were included in the study with complete clinical, TVS, laparoscopic, and histological data. 256/273 (93.8%) participants were confirmed to have endometriosis histologically. Based on surgical visualization, 139/273 (50.9%) had an OE and 207/273 (75.8%) had DE. 190/273 (69.6%) had DE confirmed histologically. For overall DE, diagnostic performance of TVS based on surgical visualization as a reference was as follows: Acc 86.1%; Sens 88.4%; Spec 78.8%; PPV 92.9%; NPV 68.4%; LR+ 4.17; LR- 0.15. Diagnostic performance of TVS based on histology as a reference standard was as follows: Acc 85.9%; Sens 89.8%; Spec 75.9%; PPV 90.4%; NPV 74.6%; LR+ 3.71; LR- 0.14. **CONCLUSION:** A systematic approach to DE TVS is paramount, and the IDEA consensus approach allows for strong diagnostic accuracy. This study has found a higher TVS detection rate of overall DE than reported by the most recent meta-analysis on the topic (sensitivity 79%) but a lower specificity. This article is protected by copyright. All rights reserved.

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Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Neves AR, Montoya-Botero P, Polyzos NP.

Androgens and diminished ovarian reserve: The long road from basic science to clinical implementation. A comprehensive and systematic review with meta-analysis.

Am J Obstet Gynecol. 2022 Mar 29:S0002-9378(22)00248-4. doi: 10.1016/j.ajog.2022.03.051. Online ahead of print.

OBJECTIVE: 1) To present a narrative review regarding androgens' production, androgens' role in folliculogenesis and the available therapeutic approaches for androgen supplementation; 2) To perform a systematic review and meta-analysis regarding impact of androgens (Dehydroepiandrosterone/Testosterone) compared to placebo or no treatment on ovarian response and pregnancy outcomes in patients with diminished ovarian reserve and/or poor ovarian responders. **DATA SOURCES:** An electronic search of MEDLINE, EMBASE, The Cochrane, The Cochrane Central Register of Controlled Trials (CENTRAL), SCOPUS, the Central Register of Controlled Trials, Current Controlled Trials and the World Health Organization International Clinical Trials Registry was conducted up to September 2021. **STUDY ELIGIBILITY CRITERIA:** Randomized controlled trials that compared ovarian response and/or pregnancy outcomes between the different IVF protocols using androgens (i.e., dehydroepiandrosterone and testosterone) and conventional IVF stimulation in patients with diminished ovarian reserve and/or poor ovarian responders were included. **METHODS:** The quality of each study was evaluated with the Revised Cochrane risk-of-bias tool for randomized trials (RoB 2). The meta-analysis used random-effects models. All the results were interpreted based on intention-to-treat analysis (defined as the inclusion of all randomized patients in the denominator). Risk ratio (RR) and the 95% confidence intervals (CIs) were used and combined for meta-analysis. **RESULTS:** No significant differences were found regarding the number of oocytes retrieved (Mean Difference (MD) 0.76; 95%CI -0.35-1.88), mature oocytes retrieved (MD 0.25; 95%CI -0.27-0.76), clinical pregnancy rate (CPR) (Risk Ratio (RR) 1.17, 95%CI 0.87-1.57), live birth rate (LBR)

(RR 0.97, 95%CI 0.47-2.01) or miscarriage rate (MR) (RR 0.80, 95%CI 0.29-2.22) when dehydroepiandrosterone priming was compared to placebo or no treatment. Testosterone pre-treatment yielded a higher number of oocytes retrieved (MD 0.94; 95%CI 0.46-1.42), a higher CPR (RR 2.07, 95%CI 1.33-3.20) and LBR (RR 2.09, 95%CI 1.11-3.95). **CONCLUSION:** While dehydroepiandrosterone did not present a clear effect on assisted reproductive techniques' outcomes, we found a potentially beneficial effect of testosterone priming on ovarian response and pregnancy outcomes. However, results should be interpreted with caution taking into account the low to moderate quality of the available evidence.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 10.693

JCR Categoría: Obstetrics & Gynecology

Posición: 2/85

Q1

Polyzos NP, Ayoubi JM, Pirtea P.

General infertility workup in times of high assisted reproductive technology efficacy.

Fertil Steril. 2022 Jul;118(1):8-18. doi: 10.1016/j.fertnstert.2022.05.019.

The assessments of oocyte quality and quantity and endocrine profile have traditionally been the cornerstone of the general workup of couples with infertility. Over the years, several clinical, hormonal, and functional biomarkers have been adopted to assess ovarian function and identify endocrine disorders before assisted reproductive technology. Furthermore, the genetic workup of patients has drastically changed, introducing novel markers. This not only allowed the prediction of response to ovarian stimulation but also contributed toward the development of a safer and more efficient management of women undergoing assisted reproductive technology. The scope of this review is to provide an overview of the current and novel strategies adopted for the assessment of ovarian function and ovulatory and endocrine disorders in women planning to conceive. Furthermore, it aims to provide an insight in the role of novel genetic biomarkers and use of expanded carrier screening as part of preliminary workup of women with infertility.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.490

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 6/85; Reproductive Biology 2/31

Q1

Roca-Feliu M, Clua E, García S, Polyzos NP, Martínez F.

Recipient outcomes in an oocyte donation programme: should very young donors be excluded?

Reprod Biomed Online. 2022 Jan 31:S1472-6483(22)00069-4. doi: 10.1016/j.rbmo.2022.01.013. Online ahead of print.

RESEARCH QUESTION: Does the oocyte donor's age affect live birth rate (LBR) in recipients? **DESIGN:** Retrospective study of 3766 oocyte recipient cycles carried out between January 2009 and December 2018. Cycles were categorized into groups according to donor's age: <20 years (4.7%); 20-25 years (41.1%); ≥26 years (54.2%). Chi-squared test was used to evaluate differences in LBR and analysis of variance was used to test differences in embryo quality, and fertilization and embryo development rates. A generalized linear mixed model was applied to estimate the odds for each end point. **RESULTS:** LBR was 40.7%. When analysed according to donors' age, significant differences were found: 33.9% for the youngest group, 39.1% for the group aged 20-25 years, and 42.5% for donors aged ≥26 years (P = 0.022). When adjusting for confounding factors (recipient age, number of transferred embryos and day of embryo transfer), LBR was lower in the group aged <20 years (OR 0.70; CI 95% 0.50 to 0.99) and in the group aged 20-25 years (OR 0.85; CI 95% 0.74 to 0.98) compared with the group aged ≥26 years. No significant differences were observed in fertilization rates (74.2%, 76.1% and

77.5%) or embryo development rates (57.0%, 61.4% and 62.0%). The number of good-quality embryos transferred was significantly lower in the group aged <20 years (1.03 ± 0.71 ; 1.18 ± 0.69 ; 1.19 ± 0.67 ; $P = 0.015$). **CONCLUSIONS:** LBR is significantly lower when donors are younger than 25 years and, especially, when they are younger than 20 years.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Roelens C, **Racca A**, Mackens S, Van Landuyt L, Buelinckx L, Gucciardo L, Tournaye H, De Vos M, Blockeel C.

Artificially prepared vitrified-warmed embryo transfer cycles are associated with an increased risk of pre-eclampsia.

Reprod Biomed Online. 2022 May;44(5):915-922. doi: 10.1016/j.rbmo.2021.12.004. Epub 2021 Dec 25.

RESEARCH QUESTION: What is the association between the development of pre-eclampsia and endometrial preparation prior to vitrified-warmed embryo transfer (frozen embryo transfer, FET)? **DESIGN:** A retrospective cohort study at a tertiary university-based hospital, including a total of 536 pregnant patients who underwent a FET between 2010 and 2019 and delivered in the same institution; 325 patients underwent natural cycle FET (NC-FET) and 211 artificial cycle FET (AC-FET). **RESULTS:** Unadjusted, the incidence of pre-eclampsia was significantly higher in AC-FET cycles than in NC-FET cycles (3.7% versus 11.8%, $P < 0.001$). Multivariable logistic regression analysis showed that, when adjusting for type of endometrial preparation (artificial cycle versus natural cycle), oocyte recipient cycles and African ethnicity, the risk of developing pre-eclampsia was significantly associated with artificial endometrial preparation or oocyte recipient cycles (AC-FET versus NC-FET: odds ratio 2.9, 95% confidence interval 1.4-6.0, $P = 0.005$). **CONCLUSIONS:** The current data show a higher incidence of pre-eclampsia in AC-FET versus NC-FET cycles, adding further strength to the existing data on this topic. Together, these recent findings may result in a change in clinical practice, towards a preference for NC-FET cycles over AC-FET cycles in ovulatory patients. Screening for high-risk patients and the development of strategies to mitigate their risk profile could reduce the risk of pre-eclampsia. Further understanding of the different vasoactive substances excreted by the corpus luteum is vital.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Ruiz A, Sanchez D, Lafuente A, Ortega G, Buendia M, Papasey J, **Jimeno SY**, **Badia FP**, Palacio ME, Abdelnour C, Ramirez-Torano F, Maestu F, Saez ME, Tarraga L, Dagnelie PC, **Boada M**.

Evaluation of the Feasibility, Safety and Efficacy of the Use of Intravenous Infusions of Adenosine Triphosphate (ATP) in People Affected by Moderate to Severe Alzheimer's Disease: A Double-Blind Masked Clinical Trial for Dose Finding.

JPAD-J Prev Alzheim Dis. 2022 Apr. doi: 10.14283/jpad.2022.38. Online ahead of print.

Background There are currently no drug therapies modifying the natural history of patients suffering Alzheimer's disease (AD). Most recent clinical trials in the field include only subjects in early stage of the disease, while patients with advanced AD are usually not represented. Objectives To evaluate the feasibility, safety and efficacy of systemic infusions of adenosine triphosphate (ATP) in patients with moderate to severe AD, and to select the minimum effective dose of infusion. Design A phase IIb, randomized, double-blind, placebo-controlled

clinical trial investigates. Participants A total of 20 subjects with moderate or severe AD were included, 16 in the treatment group and 4 in the placebo group (4:1 randomization) at two dosage regimens, 6-hour or 24-hour infusions. Results The proof-of-concept study was successfully conducted, with no significant deviations from the study protocol and no serious adverse events reported. Regarding efficacy, only marginal differences were observed between ATP and placebo arms for H-MRS and MMSE variables. Conclusions Our study demonstrates that the use of ATP infusion as therapy is feasible and safe. Larger studies are however needed to assess the efficacy of ATP in moderate to severe AD.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 5.020

JCR Categoría: Clinical Neurology

Posición: 57/212

Q2

Sánchez-Prieto M, Sánchez-Borrego R, Lubián-López DM, Pérez-López FR.

Etiopathogenesis of ovarian cancer. An inflamm-aging entity?

Gynecol Oncol Rep. 2022 Jun 11;42:101018. doi: 10.1016/j.gore.2022.101018. eCollection 2022 Aug.

Ovarian cancer is one of the most common gynecologic cancers and has the highest mortality rate. The risk/protective factors of ovarian cancer suggest that its etiology is multifactorial. Several factors are involved in age-related increases in carcinogenesis, including the accumulation of senescent cells, inflammaging (a chronic inflammatory state that persists in the elderly), and immunosenescence (aging of the immune system) changes associated with poor immune surveillance. At sites of inflammation, exposure to high levels of inflammatory mediators, such as reactive oxygen species, cytokines, prostaglandins, and growth factors, contributes to increased cell division and genetic and epigenetic changes. These exposure-induced changes promote excessive cell proliferation, increased survival, malignant transformation, and cancer development. Furthermore, the proinflammatory tumor microenvironment contributes to ovarian cancer metastasis and chemoresistance. This narrative review of the literature was carried out to delineate the possible role of inflammaging in the etiopathogenesis of ovarian cancer development. We discuss the current carcinogenic hypotheses, sites of origin, and etiological factors of ovarian cancer. Treatment of inflammation may represent an attractive strategy for both the prevention and therapy of ovarian cancer.

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Indexado en: PubMed

Sánchez-Prieto M, Puy MJ, Barbany N, Graupera B, Pascual MA, Barri-Soldevila P.

Conservative Management of Cesarean Scar Pregnancy: A Case Report and Literature Review.

Case Rep Obstet Gynecol. 2022 Jun 22;2022:1793943. doi: 10.1155/2022/1793943. eCollection 2022.

Cesarean scar pregnancy (CSP) is a rare form of ectopic pregnancy located in the lower uterine segment. The current increase in the percentage of cesarean sections is accompanied by significant growth in the incidence of CSP, while advances in ultrasound diagnostic techniques have led to a greater number of CSP diagnoses. A misdiagnosed CSP, or one that is diagnosed too late, is life-threatening to the pregnant patient and predisposes her to complications such as uterine bleeding or rupture, which often require hysterectomy and thus result in the irreversible loss of fertility. We present the case of a 50-year-old woman with a history of undiagnosed CSP after multiple consultations for intermittent bleeding and hemorrhage. She was diagnosed by ultrasound and the diagnosis was confirmed by hysteroscopy. She underwent conservative medical treatment that was successful.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.47

JCR Categoría: Obstetrics & Gynecology

Posición: 89/128

Q3

Vara J, Manzour N, Chacón E, López-Picazo A, Linares M, Pascual MÁ, Guerriero S, Alcázar JL.

Ovarian Adnexal Reporting Data System (O-RADS) for Classifying Adnexal Masses: A Systematic Review and Meta-Analysis.

Cancers (Basel). 2022 Jun 27;14(13):3151. doi: 10.3390/cancers14133151.

In this systematic review and meta-analysis, we aimed to assess the pooled diagnostic performance of the so-called Ovarian Adnexal Report Data System (O-RADS) for classifying adnexal masses using transvaginal ultrasound, a classification system that was introduced in 2020. We performed a search for studies reporting the use of the O-RADS system for classifying adnexal masses from January 2020 to April 2022 in several databases (Medline (PubMed), Google Scholar, Scopus, Cochrane, and Web of Science). We selected prospective and retrospective cohort studies using the O-RADS system for classifying adnexal masses with histologic diagnosis or conservative management demonstrating spontaneous resolution or persistence in cases of benign appearing masses after follow-up scan as the reference standard. We excluded studies not related to the topic under review, studies not addressing O-RADS classification, studies addressing MRI O-RADS classification, letters to the editor, commentaries, narrative reviews, consensus documents, and studies where data were not available for constructing a 2 × 2 table. The pooled sensitivity, specificity, positive and negative likelihood ratios, and diagnostic odds ratio (DOR) were calculated. The quality of the studies was evaluated using QUADAS-2. A total of 502 citations were identified. Ultimately, 11 studies comprising 4634 masses were included. The mean prevalence of ovarian malignancy was 32%. The risk of bias was high in eight studies for the "patient selection" domain. The risk of bias was low for the "index test" and "reference test" domains for all studies. Overall, the pooled estimated sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, and DOR of the O-RADS system for classifying adnexal masses were 97% (95% confidence interval (CI) = 94%-98%), 77% (95% CI = 68%-84%), 4.2 (95% CI = 2.9-6.0), 0.04 (95% CI = 0.03-0.07), and 96 (95% CI = 50-185), respectively. Heterogeneity was moderate for sensitivity and high for specificity. In conclusion, the O-RADS system has good sensitivity and moderate specificity for classifying adnexal masses.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.575

JCR Categoría: Oncology

Posición: 60/245

Q1

Verbakel JY, Heremans R, Wynants L, Epstein E, De Cock B, Pascual MA, Leone FPG, Sladkevicius P, Alcazar JL, Van Pachterbeke C, Jokubkiene L, Fruscio R, Bourne T, Van Calster B, Timmerman D, Van den Bosch T; -for the IETA consortium.

Risk assessment for endometrial cancer in women with abnormal vaginal bleeding: Results from the prospective IETA-1 cohort study.

Int J Gynaecol Obstet. 2022 Jan 19. doi: 10.1002/ijgo.14097. Online ahead of print.

OBJECTIVE: To investigate the association between personal history, anthropometric features and lifestyle characteristics and endometrial malignancy in women with abnormal vaginal bleeding. **METHODS:** Prospective observational cohort assessed by descriptive and multivariable logistic regression analyses. Three features-age, body mass index (BMI; calculated as weight in kilograms divided by the square of height in meters), and nulliparity-were defined a priori for baseline risk assessment of endometrial malignancy. The following variables were tested for added value: intrauterine contraceptive device, bleeding pattern, age at menopause, coexisting diabetes/hypertension, physical exercise, fat distribution, bra size, waist circumference, smoking/drinking habits, family history, use of hormonal/anticoagulant therapy, and sonographic endometrial thickness. We calculated adjusted odds ratio, optimism-corrected area under the receiver operating characteristic curve (AUC), R², and Akaike's information criterion. **RESULTS:** Of 2417 women, 155 (6%) had endometrial malignancy or endometrial intraepithelial neoplasia. In women with endometrial cancer median age was 67 years

(interquartile range [IQR] 56-75 years), median parity was 2 (IQR 0-10), and median BMI was 28 (IQR 25-32). Age, BMI, and parity produced an AUC of 0.82. Other variables marginally affected the AUC, adding endometrial thickness substantially increased the AUC in postmenopausal women. **CONCLUSION:** Age, parity, and BMI help in the assessment of endometrial cancer risk in women with abnormal uterine bleeding. Other patient information adds little, whereas sonographic endometrial thickness substantially improves assessment.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.447

JCR Categoría: Obstetrics & Gynecology

Posición: 17/85

Q1

Wynants L, Verbakel JYJ, Valentin L, De Cock B, Pascual MA, Leone FPG, Sladkevicius P, Heremans R, Alcazar JL, Votino A, Fruscio R, Epstein E, Bourne T, Van Calster B, Timmerman D, Van den Bosch T.

The Risk of Endometrial Malignancy and Other Endometrial Pathology in Women with Abnormal Uterine Bleeding: An Ultrasound-Based Model Development Study by the IETA Group.

Gynecol Obstet Invest. 2022;87(1):54-61. doi: 10.1159/000522524. Epub 2022 Feb 11.

OBJECTIVES: The aim of this study was to develop a model that can discriminate between different etiologies of abnormal uterine bleeding. **DESIGN:** The International Endometrial Tumor Analysis 1 study is a multicenter observational diagnostic study in 18 bleeding clinics in 9 countries. Consecutive women with abnormal vaginal bleeding presenting for ultrasound examination (n = 2,417) were recruited. The histology was obtained from endometrial sampling, D&C, hysteroscopic resection, hysterectomy, or ultrasound follow-up for >1 year. **METHODS:** A model was developed using multinomial regression based on age, body mass index, and ultrasound predictors to distinguish between: (1) endometrial atrophy, (2) endometrial polyp or intracavitary myoma, (3) endometrial malignancy or atypical hyperplasia, (4) proliferative/secretory changes, endometritis, or hyperplasia without atypia and validated using leave-center-out cross-validation and bootstrapping. The main outcomes are the model's ability to discriminate between the four outcomes and the calibration of risk estimates. **RESULTS:** The median age in 2,417 women was 50 (interquartile range 43-57). 414 (17%) women had endometrial atrophy; 996 (41%) had a polyp or myoma; 155 (6%) had an endometrial malignancy or atypical hyperplasia; and 852 (35%) had proliferative/secretory changes, endometritis, or hyperplasia without atypia. The model distinguished well between malignant and benign histology (c-statistic 0.88 95% CI: 0.85-0.91) and between all benign histologies. The probabilities for each of the four outcomes were over- or underestimated depending on the centers. **LIMITATIONS:** Not all patients had a diagnosis based on histology. The model over- or underestimated the risk for certain outcomes in some centers, indicating local recalibration is advisable. **CONCLUSIONS:** The proposed model reliably distinguishes between four histological outcomes. This is the first model to discriminate between several outcomes and is the only model applicable when menopausal status is uncertain. The model could be useful for patient management and counseling, and aid in the interpretation of ultrasound findings. Future research is needed to externally validate and locally recalibrate the model.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 2.729

JCR Categoría: Obstetrics & Gynecology

Posición: 49/85

Q3

PSIQUIATRIA Y PSICOLOGIA – PSICODEX SL

Nº Artículos indexados: 3

Journal Impact Factor™ – 2021:

Factor impacto medio x artículo:

Barcones F, Bulbena A, Campayo A, Campos R, Lozano M, Cebollada A, Pablo J de, **Farré JM**, García-Camba E, García-Campayo J, Girón M, Lobo E, Marcos G, Mingote C, Salvador-Carulla L, Santabárbara J, Saz P, Lobo A.

Depression in internal medicine inpatients at the time of hospital discharge and referral to primary care

Eur J Psychiatry. 2022 Apr–Jun;36(2):120-129. doi:10.1016/j.ejpsy.2022.03.001

Background and objectives: This is the first multi-center study intended to document the prevalence, characteristics, and associations of depression in Medicine patients at the time of hospital discharge and their referral to Primary Care (PC). **Methods:** Adult patients randomly selected among consecutive admissions to Medicine wards in 8 hospitals in Spain, covering health districts, were examined in a two-phase 'case-finding' procedure. Standardized, Spanish versions of instruments were used, including the Standardized Polyvalent Psychiatric Interview (SPPI) and Cumulative Illness Rating Scale (CIRS). Cases of depression were diagnosed according to ICD-10 general hospital research criteria. **Results:** Three hundred and twelve patients with treatable depression and 777 non-depressed controls were identified. In a conservative estimate, the global prevalence of major depression was 7.1%, dysthymia 4.2% and adjustment depression 7.1%, and 51.9% of cases were of moderate/ severe intensity. Depression was more frequent in women, the differences being significant in all categories of depression. The prevalence of depression was lower in individuals aged 85 or more years, the differences being significant in cases of both dysthymia and adjustment depression. A clear pattern of decreasing prevalence with age was observed in women. The depressed had as an average five medical systems affected, and higher CIRS scores compared with the controls, the differences being significant in cases of both major depression and dysthymia. **Conclusions:** This is the first report showing a considerable prevalence of treatable cases of depression in Medicine patients at the time of hospital discharge and referral to PC. Depression is associated with the severity of the medical condition, and differences observed by age and sex have clinical implications. Paper read at the 3rd Annual Meeting of the European Association of Psychosomatic Medicine, Nuremberg 2015.

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)

Factor Impacto: 1.288

JCR Categoría: Psychiatry

Posición: 125/142

Q4

Lasheras G, Farré-Sender B, Porta R, Mestre-Bach G.

Risk factors for postpartum depression in mothers of newborns admitted to neonatal intensive care unit.

J Reprod Infant Psychol. 2022 Feb;40(1):47-61. doi: 10.1080/02646838.2020.1775793. Epub 2020 Jun 4.

BACKGROUND: There is a lack of information on how maternal stress coping styles during admission of the newborn to the neonatal intensive care unit (NICU) influences the onset of the postpartum depression (PPD). We examined potential risk factors for the emergence of the PPD in mothers whose infants were admitted to the NICU. **METHODS:** A cross-sectional study was conducted on 401 mothers, 125 were mothers whose infants were admitted to the NICU and 276 mothers without NICU care. Newborn illness severity information score was taken throughout NICU admission via the Clinical Risk Index for Babies (CRIB). Six weeks after giving birth, participants from both groups individually completed the Edinburg Postnatal Depression Scale (EPDS), the Postpartum Bonding Questionnaire (PBQ) and the Coping Strategies Inventory (CSI) using an online platform. **RESULTS:** No differences were found regarding PPD and bonding in either groups. Multivariate analysis provided a final model in which cognitive restructuring, problem avoidance, severity of neonatal health problems during the first 12 hours of life, and problem solving were the best predictors of postpartum depression explaining, 43.7% of the variance in the NICU group. **CONCLUSION:** It is necessary to obtain early detailed information on coping styles in the NICU environment to prevent the possible onset of PPD.

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)
Factor Impacto: 3.207 JCR Categoría: Psychology, Multidisciplinary Posición: 53/147 Q2

Lasheras G, Farré-Sender B, Osma J.
Mother-infant bonding and postpartum depression in mothers conceiving through Assisted Reproduction Techniques
J Reprod Infant Psychol. 2022 Feb;40(2): LXXXIV-LXXXIV. Meeting Abstract

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)
Factor Impacto: 3.207 JCR Categoría: Psychology, Multidisciplinary Posición: 53/147 Q2

Lasheras G, Mestre-Bach G, Clua E, Rodríguez I, Farré-Sender B.
Cross-Border Reproductive Care and Psychological distress
J Reprod Infant Psychol. 2022 Feb;40(2): LXX-LXX. Meeting Abstract

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)
Factor Impacto: 3.207 JCR Categoría: Psychology, Multidisciplinary Posición: 53/147 Q2

Lobo A, Rabanaque I, Gomez-Reino I, **Farre JM**, Aguilar EJ, Artal JA, Blanch J, Cano, S, Cebollada A, Franco MA, Garcia-Roman C, Lazaro J, Lopez-Ilundain J, Jambrina JJM, Molina JJ, Ortega MA, Perez-Costillas LM, Rodado JV, Ventura T, Torres L, Zorrilla I, Parramon G.
The impact of the COVID epidemic in psychosomatic and liaison psychiatry units in Spain: A national enquiry.
J Psychosom Res. 2022 Feb; 155(6):110752. doi:10.1016/j.jpsychores.2022.110752

Indexado en: PubMed/WOS/JCR/JCI/ Social Sciences Citation Index (SSCI)
Factor Impacto: 4.620 JCR Categoría: Psychiatry Posición: 48/142 Q2

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)
Factor de Impacto: 4.620 JCR Categoría: Psychiatry Posición: 65/155 Q2

REUMATOLOGIA

Nº Artículos indexados: 3

Journal Impact Factor™ – 2021:

Factor impacto medio x artículo:

Gómez-Centeno A, Ramentol M, Alegre C.

Nutritional Supplementation With Coenzyme Q10, Tryptophan and Magnesium in Fibromyalgia Treatment: A Letter to Editor.

Reumatol Clin (Engl Ed). 2022 Jan;18(1):62-63. doi: 10.1016/j.reumae.2020.04.016.

Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.34

JCR Categoría: Rheumatology

Posición: 42/52

Q4

Rivera Redondo J, Díaz Del Campo Fontecha P, Alegre de Miquel C, Almirall Bernabé M, Casanueva Fernández B, Castillo Ojeda C, Collado Cruz A, Montesó-Curto P, Palao Tarrero Á, Trillo Calvo E, Vallejo Pareja MÁ, Brito García N, Merino Arguménez C, Plana Farras MN.

Recommendations by the Spanish Society of Rheumatology on Fibromyalgia. Part 1: Diagnosis and treatment.

Reumatol Clin (Engl Ed). 2022 Mar;18(3):131-140. doi: 10.1016/j.reumae.2021.02.002. Epub 2021 Oct 11.

OBJECTIVE: To prevent the impairment of fibromyalgia patients due to harmful actions in daily clinical practice that are potentially avoidable. **METHODS:** A multidisciplinary team identified the main areas of interest and carried out an analysis of scientific evidence and established recommendations based on the evidence and "formal evaluation" or "reasoned judgment" qualitative analysis techniques. **RESULTS:** A total of 39 recommendations address diagnosis, unsafe or ineffective treatment interventions and patient and healthcare workers' education. This part I shows the first 27 recommendations on the first 2 areas. **CONCLUSIONS:** Establishing a diagnosis improves the patient's coping with the disease and reduces healthcare costs. NSAIDs, strong opioids and benzodiazepines should be avoided due to side effects. There is no good evidence to justify the association of several drugs. There is also no good evidence to recommend any complementary medicine. Surgeries show a greater number of complications and a lower degree of patient satisfaction and therefore should be avoided if the surgical indication is not clearly established.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.34

JCR Categoría: Rheumatology

Posición: 42/52

Q4

Rivera Redondo J, Díaz Del Campo Fontecha P, Alegre de Miquel C, Almirall Bernabé M, Casanueva Fernández B, Castillo Ojeda C, Collado Cruz A, Montesó-Curto P, Palao Tarrero Á, Trillo Calvo E, Vallejo Pareja MÁ, Brito García N, Merino Arguménez C, Plana Farras MN.

Recommendations by the Spanish Society of Rheumatology on the management of patients with fibromyalgia. Part II.

Reumatol Clin (Engl Ed). 2022 May;18(5):260-265. doi: 10.1016/j.reumae.2021.01.005. Epub 2021 Sep 15.

OBJECTIVE: To prevent the deterioration of patients with fibromyalgia due to potentially avoidable harmful actions in clinical practice. **METHODS:** A multidisciplinary panel of experts identified key areas, analysed the scientific evidence and formulated recommendations based on this evidence and qualitative techniques of "formal assessment" or "reasoned judgement". **RESULTS:** Thirty-nine recommendations were made on diagnosis, ineffective and unsafe treatments, patient education and practitioner training. This part II shows the 12 recommendations, referring to the latter two areas. **CONCLUSIONS:** Good knowledge of fibromyalgia on the part of patients improves their coping and acceptance of the disease and reduces the severity of some clinical

manifestations. Healthcare professionals treating patients with fibromyalgia should be well trained in this disease to improve treatment outcomes and patient relationships.

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Indexado en: PubMed/WOS/JCR/JCI Emerging Sources Citation Index (ESCI)

Journal Citation Index: 0.34 **JCR Categoría:** Rheumatology

Posición: 42/52

Q4

Artículos destacados en 1er Decil

DIGESTIVO

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

Truong AP, Pérez-Prieto D, Byrnes J, Monllau JC, Vertullo CJ.

Vancomycin Soaking Is Highly Cost-Effective in Primary ACLR Infection Prevention: A Cost-Effectiveness Study.

Am J Sports Med. 2022 Mar;50(4):922-931. doi: 10.1177/03635465211073338. Epub 2022 Feb 18.

BACKGROUND: Although presoaking grafts in vancomycin has been demonstrated to be effective in observational studies for anterior cruciate ligament reconstruction (ACLR) infection prevention, the economic benefit of the technique is uncertain. **PURPOSE:** To 1) determine the cost-effectiveness of vancomycin presoaking during primary ACLR to prevent postoperative joint infections and 2) to establish the break-even cost-effectiveness threshold of the technique and determine its cost-effectiveness across various international health care settings. **STUDY DESIGN:** Economic and decision analysis; Level of evidence, 2. **METHODS:** A Markov model was used to determine cost-effectiveness and the incremental cost-effectiveness ratio of additional vancomycin presoaking compared with intravenous antibiotic prophylaxis alone. A repeated search of the PubMed, SCOPUS, and Cochrane Central Register of Controlled Trials databases, using the same criteria as a recent meta-analysis, was completed. A repeated meta-analysis of 9 cohort studies (level 3 evidence) was completed to determine the odds ratio of infection with vancomycin presoaking compared with intravenous antibiotics alone. Estimated costs of the vancomycin technique, treatment of infection, and further surgery were sourced from local hospitals and literature. Transitional probabilities for further surgery, including revision reconstruction and primary arthroplasty, were obtained from the literature. Probabilistic sensitivity analyses and a 1-way sensitivity analysis were performed to evaluate the ACLR infection rate break-even threshold for which the vancomycin technique would be no longer cost-effective. **RESULTS:** The vancomycin soaking technique provides expected cost savings of \$660 (USA), A\$581 (Australia), and €226 (Spain) per patient. There was an improvement in the quality-adjusted life-years of 0.007 compared with intravenous antibiotic prophylaxis alone (4.297 vs 4.290). If the infection rate is below 0.014% with intravenous antibiotics alone, the vancomycin wrap would no longer be cost-effective. **CONCLUSION:** The vancomycin presoaking technique is a highly cost-effective method to prevent postoperative septic arthritis after primary ACLR.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.010

JCR Categoría: Orthopedics; Sport Sciences

Posición: Orthopedics 3/86; Sport Sciences 6/87

Q1

Valle X, Mechó S, Alentorn-Geli E, Järvinen TAH, Lempainen L, Pruna R, Monllau JC, Rodas G, Isern-Kebuschull J, Ghrairi M, Yanguas X, Balius R, la Torre AM.

Return to Play Prediction Accuracy of the MLG-R Classification System for Hamstring Injuries in Football Players: A Machine Learning Approach.

Sports Med. 2022 May 24. doi: 10.1007/s40279-022-01672-5. Online ahead of print.

BACKGROUND AND OBJECTIVE: Muscle injuries are one of the main daily problems in sports medicine, football in particular. However, we do not have a reliable means to predict the outcome, i.e. return to play from severe injury. The aim of the present study was to evaluate the capability of the MLG-R classification system to grade

hamstring muscle injuries by severity, offer a prognosis for the return to play, and identify injuries with a higher risk of re-injury. Furthermore, we aimed to assess the consistency of our proposed system by investigating its intra-observer and inter-observer reliability. **METHODS:** All male professional football players from FC Barcelona, senior A and B and the two U-19 teams, with injuries that occurred between February 2010 and February 2020 were reviewed. Only players with a clinical presentation of a hamstring muscle injury, with complete clinic information and magnetic resonance images, were included. Three different statistical and machine learning approaches (linear regression, random forest, and eXtreme Gradient Boosting) were used to assess the importance of each factor of the MLG-R classification system in determining the return to play, as well as to offer a prediction of the expected return to play. We used the Cohen's kappa and the intra-class correlation coefficient to assess the intra-observer and inter-observer reliability. **RESULTS:** Between 2010 and 2020, 76 hamstring injuries corresponding to 42 different players were identified, of which 50 (65.8%) were grade 3r, 54 (71.1%) affected the biceps femoris long head, and 33 of the 76 (43.4%) were located at the proximal myotendinous junction. The mean return to play for grades 2, 3, and 3r injuries were 14.3, 12.4, and 37 days, respectively. Injuries affecting the proximal myotendinous junction had a mean return to play of 31.7 days while those affecting the distal part of the myotendinous junction had a mean return to play of 23.9 days. The analysis of the grade 3r biceps femoris long head injuries located at the free tendon showed a median return to play time of 56 days while the injuries located at the central tendon had a shorter return to play of 24 days ($p = 0.038$). The statistical analysis showed an excellent predictive power of the MLG-R classification system with a mean absolute error of 9.8 days and an R-squared of 0.48. The most important factors to determine the return to play were if the injury was at the free tendon of the biceps femoris long head or if it was a grade 3r injury. For all the items of the MLG-R classification, the intra-observer and inter-observer reliability was excellent ($k > 0.93$) except for fibres blurring ($\kappa = 0.68$). **CONCLUSIONS:** The main determinant for a long return to play after a hamstring injury is the injury affecting the connective tissue structures of the hamstring. We developed a reliable hamstring muscle injury classification system based on magnetic resonance imaging that showed excellent results in terms of reliability, prognosis capability and objectivity. It is easy to use in clinical daily practice, and can be further adapted to future knowledge. The adoption of this system by the medical community would allow a uniform diagnosis leading to better injury management.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 11.928 **JCR Categoría:** Sport Sciences **Posición:** 3/87

Q1

Wang CK, Cohen D, Kay J, Almasri M, Simunovic N, **Cardenas-Nylander C**, Ranawat AS, Ayeni OR.

The Effect of Femoral and Acetabular Version on Outcomes Following Hip Arthroscopy: A Systematic Review.

J Bone Joint Surg Am. 2022 Feb 2;104(3):271-283. doi: 10.2106/JBJS.21.00375.

BACKGROUND: Torsional hip deformities are common among patients undergoing hip arthroscopy. However, recent studies have suggested conflicting outcomes following arthroscopy in the setting of abnormal hip version. The purpose of this study was to systematically evaluate the literature and determine the impact of femoral and acetabular version on patient-reported outcomes following primary arthroscopic hip surgery. **METHODS:** This study was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement. Studies investigating femoral and acetabular version in primary hip arthroscopy with clinical outcomes were identified, and data were extracted in duplicate. **RESULTS:** Overall, 11 studies met inclusion criteria and comprised 1,297 hips (726 femora and 571 acetabulae), with a mean patient age of 29.2 years (range, 14 to 74.7 years). In patients with acetabular retroversion, there was no significant difference, when compared with the normal acetabular version group, in the modified Harris hip score (mHHS), the Hip Outcome Score-Sports Specific Subscale (HOS-SSS), and visual analog scale (VAS) pain scores postoperatively. Among patients with femoral retroversion, in 2 of 3 studies, the authors reported no difference in mHHS postoperatively compared with patients with normal femoral version. In patients with high femoral

anteversion, in 2 of 3 studies, the authors reported a significant difference in postoperative mHHS favoring patients with normal femoral version. Studies examining high femoral anteversion included patients with borderline hip dysplasia and patients who underwent concurrent psoas-lengthening procedures. **CONCLUSIONS:** Although the definition of the normal version of the hip varied within the literature, hip arthroscopy in patients with acetabular retroversion resulted in no difference in functional outcomes compared with patients with normal version. Postoperative functional outcomes in patients with femoral retroversion and high femoral anteversion were mixed, although the procedure was possibly less effective in high femoral anteversion combined with specific clinical scenarios. Further prospective studies based on standardized definitions and version analysis techniques would be useful in identifying the precise surgical indications for safe arthroscopic surgical procedures in patients with version abnormalities of the femur and acetabulum, particularly those with high femoral anteversion and retroversion. **LEVEL OF EVIDENCE:** Prognostic Level IV. See Instructions for Authors for a complete description of levels of evidence.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 6.558

JCR Categoría: Orthopedics; Surgery

Posición: Orthopedics 4/86; Surgery 13/211

Q1

INSTITUTO ONCOLÓGICO DR. ROSELL – DEXEUS

Cardona AF, **González-Cao M**, Arrieta O, **Rosell R**.

Location of EGFR exon 20 insertions matters.

Cancer Cell. 2022 Jul 11;40(7):705-708. doi: 10.1016/j.ccell.2022.06.002.

EGFR exon 20 insertions represent a subgroup of NSCLC patients posed with a therapy dilemma. In this issue of Cancer Cell, Elamin and colleagues demonstrate that only insertions localized in the near loop respond to poziotinib. Pharmacological inhibition of spindle assembly checkpoint components inhibits tumor growth in poziotinib-resistant exon 20 insertions.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 38.585

JCR Categoría: Oncology; Cell Biology

Posición: Oncology 8/245; Cell Biology 5/194

Q1

Pérez-García JM, Batista MV, Cortez P, Ruiz-Borrego M, Cejalvo JM, de la Haba-Rodriguez J, **Garrigós L**, Racca F, Servitja S, Blanch S, Gion M, Nave M, Fernández-Abad M, **Martínez-Bueno A**, Llombart-Cussac A, Sampayo-Cordero M, Malfettone A, Cortés J, Braga S.

Trastuzumab Deruxtecan in Patients with Central Nervous System Involvement from HER2-Positive Breast Cancer: The DEBBRAH Trial.

Neuro Oncol. 2022 May 26;noac144. doi: 10.1093/neuonc/noac144. Online ahead of print.

BACKGROUND: Trastuzumab deruxtecan (T-DXd) has shown durable antitumor activity in pretreated patients with HER2-positive advanced breast cancer (ABC), but its efficacy has not yet been evaluated in patients with active brain metastases (BMs). DEBBRAH aims to assess T-DXd in patients with HER2-positive or HER2-low ABC and central nervous system involvement. **METHODS:** This ongoing, five-cohort, phase II study (NCT04420598) enrolled patients with pretreated HER2-positive or HER2-low ABC with stable, untreated, or progressing BMs and/or leptomeningeal carcinomatosis. Here, we report findings from HER2-positive ABC patients with non-progressing BMs after local therapy (n=8; cohort 1), asymptomatic untreated BMs (n=4; cohort 2), or

progressing BMs after local therapy (n=9; cohort 3). Patients received 5.4 mg/kg T-DXd intravenously once every 21 days. The primary endpoint was 16-week progression-free survival (PFS) for cohort 1 and intracranial overall response rate (ORR-IC) for cohorts 2 and 3. **RESULTS:** As of October 20, 2021, 21 patients received T-DXd. In cohort 1, 16-week PFS rate was 87.5% (95%CI, 47.3-99.7; P<.001). ORR-IC was 50.0% (95%CI, 6.7-93.2) in cohort 2 and 44.4% (95%CI, 13.7-78.8; P<.001) in cohort 3. Overall, the ORR-IC in patients with active BMs was 46.2% (95%CI, 19.2-74.9). Among patients with measurable intracranial or extracranial lesions at baseline, the ORR was 66.7% (12 out of 18 patients; 95%CI, 41.0-86.7), 80.0% (95%CI, 28.4-99.5) in cohort 1, 50.0% (95%CI, 6.7-93.2) in cohort 2, and 66.7% (95%CI, 29.9-92.5) in cohort 3. All responders had partial responses. The most common adverse events included fatigue (52.4%; 4.8% grade \geq 3), nausea (42.9%; 0% grade \geq 3), neutropenia (28.6%; 19% grade \geq 3), and constipation (28.6%; 0% grade \geq 3). Two (9.5%) patients suffered grade 1 interstitial lung disease/pneumonitis. **CONCLUSIONS:** T-DXd showed intracranial activity with manageable toxicity and maintained quality of life in pretreated HER2-positive ABC patients with stable, untreated, or progressing BMs. Further studies are needed to validate these results in larger cohorts.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 13.029

JCR Categoría: Oncology; Clinical Neurology

Posición: Clinical Neurology 8/211; Oncology 21/245

Q1

Provencio M, Serna-Blasco R, 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, Calvo V, Martín-López J, García-García F, Casarrubios M, Franco F, Sánchez-Herrero E, Massuti B, Cruz-Bermúdez A, Romero A.

Overall Survival and Biomarker Analysis of Neoadjuvant Nivolumab Plus Chemotherapy in Operable Stage IIIA Non-Small-Cell Lung Cancer (NADIM phase II trial).

J Clin Oncol. 2022 May 16:JCO2102660. doi: 10.1200/JCO.21.02660. Online ahead of print.

PURPOSE: Neoadjuvant chemotherapy plus nivolumab has been shown to be effective in resectable non-small-cell lung cancer (NSCLC) in the NADIM trial (ClinicalTrials.gov identifier: NCT03081689). The 3-year overall survival (OS) and circulating tumor DNA (ctDNA) analysis have not been reported. **METHODS:** This was an open-label, multicenter, single-arm, phase II trial in which patients with stage IIIA NSCLC, who were deemed to be surgically resectable, were treated with neoadjuvant paclitaxel (200 mg/m² once a day) and carboplatin (area under curve 6) plus nivolumab (360 mg) once on day 1 of each 21-day cycle, for three cycles, followed by adjuvant nivolumab monotherapy for 1 year (240 mg once every 2 weeks for 4 months, followed by 480 mg once every 4 weeks for 8 months). The 3-year OS and ctDNA analysis were secondary objectives of the trial. **RESULTS:** OS at 36 months was 81.9% (95% CI, 66.8 to 90.6) in the intention-to-treat population, rising to 91.0% (95% CI, 74.2 to 97.0) in the per-protocol population. Neither tumor mutation burden nor programmed cell death ligand-1 staining was predictive of survival. Conversely, low pretreatment levels of ctDNA were significantly associated with improved progression-free survival and OS (hazard ratio [HR]: 0.20; 95% CI, 0.06 to 0.63, and HR: 0.07; 95% CI, 0.01 to 0.39, respectively). Clinical responses according to RECIST v1.1 criteria did not predict survival outcomes. However, undetectable ctDNA levels after neoadjuvant treatment were significantly associated with progression-free survival and OS (HR: 0.26; 95% CI, 0.07 to 0.93, and HR: 0.04; 95% CI, 0.00 to 0.55, respectively). The C-index to predict OS for ctDNA levels after neoadjuvant treatment (0.82) was superior to that of RECIST criteria (0.72). **CONCLUSION:** The efficacy of neoadjuvant chemotherapy plus nivolumab in resectable NSCLC is supported by 3-year OS. ctDNA levels were significantly associated with OS and outperformed radiologic assessments in the prediction of survival.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 50.769

JCR Categoría: Oncology

Posición: 6/245

Q1

Rosell R, Cardona AF, Arrieta O, **González-Cao M.**

Classification of atypical EGFR mutations in non-small-cell lung cancer.

Ann Oncol. 2022 Jun;33(6):571-573. doi: 10.1016/j.annonc.2022.03.010.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 51.769

JCR Categoría: Oncology

Posición: 5/245

Q1

NEUMOLOGÍA

Mullol J, Maldonado M, **Castillo JA**, Miguel-Blanco C, Dávila I, Domínguez-Ortega J, Blanco-Aparicio M.

Management of United Airway Disease focused on patients with asthma and chronic rhinosinusitis with nasal polyps: a systematic review.

J Allergy Clin Immunol Pract. 2022 May 11:S2213-2198(22)00484-6. doi: 10.1016/j.jaip.2022.04.039. Online ahead of print.

BACKGROUND: The clinical approach to upper and lower respiratory diseases from a joint perspective, known as united airway disease (UAD), is challenging for healthcare professionals due to a paucity of specific studies.

OBJECTIVE: This study reviews recent scientific evidence on the management of asthma and chronic rhinosinusitis with nasal polyps (CRSwNP) from an UAD perspective. **METHODS:** A systematic search of PubMed, Scopus and Web of Science was conducted for nine research questions, and studies published from January 2015 to July 2021 were included. Quality assessment was performed with the Critical Appraisal Skills Programme. **RESULTS:** In total, 32 publications met the inclusion criteria. Control of type 2 inflammation in UAD (reported in 9 studies) was associated with biological therapies, for which an impact on asthma, CRSwNP and/or aspirin/nonsteroidal anti-inflammatory drug-exacerbated respiratory disease (AERD/N-ERD) outcomes was described in 9 studies. However, there was a lack of scientific evidence on clinical and/or biochemical markers associated with response to biologics in patients with UAD. The benefit on corticosteroid reduction in patients receiving biologics was reported in 9 studies. Three publications reported a positive impact of surgery on asthma and/or CRSwNP outcomes, while the effect of biologics on reducing the need of surgery was consistent across six studies. **CONCLUSION:** Our results underscore an overall scarcity of scientific evidence on the treatment strategies for these frequent coexisting entities from an UAD approach, but also identifies several research gaps and unmet needs that should be addressed to ensure optimal diagnosis, management, and follow-up of these patients.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 11.022

JCR Categoría: Allergy; Immunology

Posición: Allergy 3/27; Immunology 22/161

Q1

OBSTETRICIA i GINECOLOGIA - SALUT DE LA DONA DEXEUS

Alcázar JL, Eguez PM, Forcada P, Ternero E, Martínez C, **Pascual MÁ**, Guerrero S.

Diagnostic accuracy of sliding sign for detecting pouch of Douglas obliteration and bowel involvement in women with suspected endometriosis: systematic review and meta-analysis.

Ultrasound Obstet Gynecol. 2022 Mar 15. doi: 10.1002/uog.24900. Online ahead of print.

OBJECTIVE: The aim of this meta-analysis is to evaluate the diagnostic accuracy of the sliding sign in transvaginal ultrasound (TVS) to detect pouch of Douglas obliteration (PoDo) and bowel involvement (BI) in patients with suspected endometriosis, using laparoscopy as the reference standard. **METHODS:** A search for studies evaluating the role of sliding sign for assessing PoDo and bowel involvement compared to surgery from January 2000 to October 2021 was performed in PubMed/MEDLINE, Web of Science, CINAHL, Cochrane, Clinicaltrial.gov and Scopus databases. The Quality Assessment of Diagnostic Accuracy Studies 2 evaluated the quality of the studies (QUADAS-2). All analyses were performed using MIDAS and METANDI commands. **RESULTS:** We identified 334 citations. After exclusions, eight studies comprising 938 (PoDo) and 963 (BI) women were included. Mean prevalence of PoDo was 37%. Mean prevalence of bowel involvement was 23%. The pooled estimated sensitivity, specificity, positive likelihood, negative likelihood ratio and diagnostic odd ratio of sliding sign in TVS for detecting PoDo were 88% (95% confidence interval [CI]=81%-93%), 94% (95% CI=91%-96%), 15.1 (95% CI=10.0-22.8), 0.12 (95% CI= 0.07-0.21) and 124 (95% CI=62-245)., respectively. Heterogeneity was moderate. The pooled estimated sensitivity, specificity, positive likelihood, negative likelihood ratio and diagnostic odd ratio of sliding sign in TVS for detecting bowel involvement were 81% (95% confidence interval [CI]=64%-91%), 95% (95% CI=91%-97%), 16.0 (95% CI= 9.0-28.6), 0.20 (95% CI= 0.10-0.40) and 81 (95% CI=34-191)., respectively. Heterogeneity was moderate for both cases. **CONCLUSIONS:** The sliding sign in TVS has good diagnostic performance for predicting pouch of Douglas obliteration and bowel involvement in women with suspected endometriosis. This article is protected by copyright. All rights reserved.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging;

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Clua E, Rodríguez I, Arroyo G, Racca A, Martínez F, Polyzos NP.

Blastocyst versus cleavage embryo transfer improves cumulative live birth rates, time and cost in oocyte recipients: a randomized controlled trial.

Reprod Biomed Online. 2022 Jun;44(6):995-1004. doi: 10.1016/j.rbmo.2022.01.001.

RESEARCH QUESTION: Does embryo transfer day (day 5 versus day 3) affect cumulative live birth rates (CLBR), time to live birth (TLB) and cost per live birth (CPL) in recipients of donated oocytes? **STUDY DESIGN:** A single-centre RCT conducted between April 2017 and August 2018. Recipients of donated oocytes were randomized to cleavage-stage (day 3) or to blastocyst-stage (day 5) embryo transfer. Eligible recipients were aged 18-50 years and in their first or second synchronous cycle. Primary outcome was CLBR (12 months from first embryo transfer), and fresh and subsequent cryopreserved transfers were considered; TLB and CPL were also analysed. **RESULTS:** Recipients (n = 134) were randomized to the day-3 group (n = 69) or to the day-5 group (n = 65). Day-5 transfer resulted in a 15.9% relative increase in CLBR and a significant shorter TLB compared with day-3 transfer. To reach a 50% CLBR, the day-3 group required 6 months more than the day-5 group (15.3 versus 8.9 months, respectively). The average CPL in the day-3 strategy cost 24% more than the day-5 strategy (€14817.10 versus €10959.20). Clinical pregnancy rate was 25% less in the day-3 group. The trial was prematurely stopped after poor initial results in the day-3 arm led to unplanned interim analysis. **CONCLUSIONS:** The transfer of blastocyst-stage embryos in recipients of donated oocytes is preferred as it leads to a higher clinical pregnancy rate, live birth rate, shorter time to pregnancy and lower costs to achieve live birth, compared with cleavage-stage embryo transfer.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Devesa M, Racca A, Clúa E, Casato C, García S, Polyzos NP, Martínez F.

Progesterone-primed ovarian stimulation in oocyte donation: a model for elective fertility preservation?

Reprod Biomed Online. 2022 Jun;44(6):1015-1022. doi: 10.1016/j.rbmo.2022.02.003.

RESEARCH QUESTION: Does type of LH peak suppression (progesterone-primed ovarian stimulation [PPOS] versus gonadotrophin releasing hormone [GnRH] antagonist) affect oocyte competence, embryo development and live birth rates in recipients of vitrified donated oocytes? **DESIGN:** Retrospective cohort study conducted between 2016 and 2018, involving 187 recipient cycles of donated vitrified oocytes. Oocyte donors were stimulated under LH suppression with desogestrel for PPOS (DSG group) or ganirelix GnRH antagonist (ANT group). Recipients younger than 50 years received vitrified oocytes from DSG donation cycles (DSG-R) or ANT donation cycles (ANT-R). **RESULTS:** A mean of 10.07 ± 3.54 oocytes per recipient were warmed (survival rate of 80.7%), and 5.90 ± 2.89 were fertilized (fertilization rate 72.6%). Out of 187 recipients, 168 achieved embryo transfers. No significant differences were found in warming survival rates, fertilization rates and embryo development between DSG-R and ANT-R groups. Ninety-four clinical pregnancies and 81 live births were achieved. No statistically significant differences were found in clinical pregnancy rates (47.7% versus 52.5, $P = 0.513$) and live birth rates (39.5% versus 46.5%, $P = 0.336$) per recipient cycle between DSG-R and ANT-R, respectively. Multivariable logistic regression was applied to assess the effect of treating oocyte donors. Live birth rate adjusted for associated factors was not statistically different between vitrified oocytes from DSG or ANT (OR 0.74, 95% CI 0.37 to 1.47). **CONCLUSION:** Reproductive outcomes of recipients of vitrified oocytes are not affected by donor PPOS treatment. PPOS is suitable for suppressing LH peak in elective fertility preservation and in freeze-all strategies.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Drakopoulos P, Di Guardo F, Polyzos NP.

Is mild stimulation the way forward?

Reprod Biomed Online. 2022 Feb 28:S1472-6483(22)00128-6. doi: 10.1016/j.rbmo.2022.02.019. Online ahead of print.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Franasiak JM, Polyzos NP, Neves AR, Yovich JL, Ho TM, Vuong LN, Norman RJ.

Intracytoplasmic sperm injection for all or for a few?

Fertil Steril. 2022 Feb;117(2):270-284. doi: 10.1016/j.fertnstert.2021.12.001.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.329

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 4/83; Reproductive Biology 2/30

Q1

Garde I, Paredes C, Ventura L, Pascual MA, Ajossa S, Guerriero S, Vara J, Linares M, Alcázar JL.

Diagnostic accuracy of different ultrasound signs for detecting adnexal torsion: systematic review and meta-analysis.

Ultrasound Obstet Gynecol. 2022 Jun 25. doi: 10.1002/uog.24976. Online ahead of print.

OBJECTIVE: To evaluate the diagnostic accuracy of different ultrasound signs for diagnosing adnexal torsion (AT), using surgery as the reference standard. **METHODS:** A search was performed in PubMed/MEDLINE, CINAHL, Scopus, Cochrane, ClinicalTrials.gov and Web of Science databases (January 1990 to November 2021) for studies evaluating the presence of ovarian edema, an adnexal mass, Doppler flow findings and the whirlpool sign as ultrasound signs (index tests) for detecting AT, using surgical findings as reference standard. The Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool was used to evaluate the quality of the studies. Pooled sensitivity, specificity, positive and negative likelihood ratios were calculated separately, and the post-test probability of AT following a positive or negative test also was determined. **RESULTS:** The search identified 1267 citations after excluding duplicates. Twenty studies were ultimately included in the qualitative and quantitative syntheses. Ten studies, comprising 983 patients, analyzed ovarian edema. Eleven studies, comprising 1295 patients, analyzed the presence of adnexal mass. Fifteen studies, comprising 2212 patients, analyzed the Doppler flow. Finally, seven studies, comprising 654 patients, analyzed whirlpool sign. Overall, quality was considered as moderate or good for most studies. However, there is a high risk of bias in Patient Selection and Index text (except for whirlpool sign) in a significant proportion of studies. Pooled sensitivity, specificity and positive and negative likelihood ratios of each ultrasound sign were 58%, 86%, 4.0 and 0.49 for ovarian edema, 69%, 43%, 1.3 and 0.67 for adnexal mass, 65%, 92%, 8.0 and 0.38 for whirlpool sign, 53%, 95%, 11.0 and 0.49 for Doppler findings and 55%, 69%, 1.7 and 0.66 for pelvic fluid. Heterogeneity was high for all them. **CONCLUSION:** Diagnostic accuracy of the presence of an adnexal mass or pelvic fluid as ultrasound signs for suspecting an adnexal torsion is moderate, while the presence of ovarian edema, whirlpool sign and decreased or absent Doppler flow show good specificity. This article is protected by copyright. All rights reserved.

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Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Heremans R, Van den Bosch T, Valentin L, Wynants L, Pascual MA, Fruscio R, Testa AC, Buonomo F, Guerriero S, Epstein E, Bourne T, Timmerman D, Leone FPG.

Ultrasound features of endometrial pathology in women without abnormal uterine bleeding: results from the International Endometrial Tumor Analysis Study (IETA3).

Ultrasound Obstet Gynecol. 2022 Apr 6. doi: 10.1002/uog.24910. Online ahead of print.

OBJECTIVES: The primary aim is to describe the ultrasound features of various endometrial and other intracavitary pathologies in women without abnormal uterine bleeding (AUB) using the International Endometrial Tumor Analysis (IETA) terminology. The secondary aim is to compare our findings with published data on women with AUB. **METHODS:** Patients presenting in seven ultrasound centers from 2011 until 2018 for indications unrelated to abnormal vaginal bleeding underwent transvaginal ultrasound examination using the IETA examination technique and measurement technique. The ultrasonography was performed either as part of routine gynecological examination, follow-up of non-endometrial pathology, or in the workup before undergoing treatment for infertility, uterine prolapse or ovarian pathology. Ultrasound findings were described using IETA terminology. Findings were compared to those in a published cohort of women with AUB who were examined with transvaginal ultrasound between 2012 and 2015 using the same IETA examination technique

and terminology. **RESULTS:** The IETA3 study includes 1745 women without vaginal bleeding who underwent a standardized transvaginal ultrasound examination followed by either endometrial sampling with histological diagnosis (n = 1537) or at least 1 year of clinical and ultrasound follow-up (n = 208). 858 women were premenopausal (49%), and 887 women were postmenopausal (51%). Histology showed endometrial cancer (EC) and/or endometrial intraepithelial neoplasia (EIN) in 29 (2%) women, endometrial polyps in 1028 (59%), intracavitary myomas in 66 (4%), proliferative or secretory changes or hyperplasia without atypia in 144 (8%), endometrial atrophy in 265 (15%) and insufficient tissue in 5 (0.3%). Most EC and EIN (25/29; 86%) were diagnosed after menopause. The mean endometrial thickness in women with EC or EIN was 11.2mm (95% confidence interval [CI]: 8.9 to 13.6), which made them on average 2.5mm (95% CI: +0.3 to +4.6) thicker than their benign counterparts. Malignant endometria more frequently manifested non-uniform echogenicity (22/29; 76%) than benign endometria (929/1716; 54%) (difference +21.8%; 95% CI: +4.2 to +39.2). Of EC and EIN, 31% (9/29) showed moderate to abundant vascularization (color score 3-4) compared to 13% (220/1716) of benign outcomes (difference +18.2%; 95%CI: -0.5 to +36.9), and multiple multifocal vessels were recorded in 24% (7/29) versus in 4% (68/1716) (difference +20.2%; 95%CI: +4.6 to +35.7). A regular endometrial-myometrial border was less frequently seen in women with EC and/or EIN (19/29; 66%) vis-à-vis benign outcomes (1412/1716; 82%) (difference 16.8%; -34.2 to +0.6). A single dominant vessel was the most frequent vascular pattern in asymptomatic endometrial polyps (666/1028; 65%). Both in women with and without AUB malignant endometria usually manifested heterogeneous echogenicity, but malignant endometria were on average 8.6mm (95% CI 5.2 to 12) thinner in women without AUB and less intensely vascularized (difference in color score 3-4: 26.8%; 95%CI: 1.3 to 52.2). Asymptomatic endometrial polyps, both in pre- and postmenopausal women, were associated with thinner endometrium, and they more frequently manifested a bright edge, a regular endo-myometrial junction, and a single dominant vessel than polyps in symptomatic women and they were less intensely vascularized. **CONCLUSION:** We describe the typical ultrasound features of endometrial cancer, polyps, and other intracavitary histologies using IETA terminology in women without AUB. Our results suggest that asymptomatic polyps and endometrial malignancies may present with thinner and less intensely vascularized endometria than their symptomatic counterparts. This article is protected by copyright. All rights reserved.

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Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Leonardi M, Uzuner C, Mestdagh W, Lu C, Guerriero S, Zajicek M, Dueckelmann A, Filippi F, Buonomo F, Pascual MA, Stepniewska A, Ceccaroni M, Van den Bosch T, Timmerman D, Hudelist G, Condous G.

International and multicenter prospective diagnostic accuracy of transvaginal ultrasound for endometriosis using the International Deep Endometriosis Analysis (IDEA) terminology: pilot study.

Ultrasound Obstet Gynecol. 2022 May 13. doi: 10.1002/uog.24936. Online ahead of print.

OBJECTIVES: To evaluate the diagnostic accuracy of transvaginal ultrasound (TVS) to predict ovarian endometriomas (OE), overall deep endometriosis (DE), and DE locations by following the International Deep Endometriosis Analysis (IDEA) consensus statement. **METHODS:** This was an international, multicenter prospective diagnostic accuracy study involving eight centers across six countries (August 2018-November 2019). Consecutive participants were enrolled. Only participants with suspected endometriosis based on clinical symptoms or historical diagnosis of endometriosis were included. The index test was TVS performed pre-operatively in accordance with the IDEA consensus statement. At each center, the index test was interpreted by a single sonologist. The reference standards used were 1) direct visualization of endometriosis at laparoscopy as determined by a non-blinded surgeon with expertise in endometriosis surgery and 2) histological assessment of

biopsied/excised tissue. All surgeries were performed within 12 months of the index test TVS. Accuracy (Acc), sensitivity (Sens), specificity (Spec), positive and negative predictive values (PPV/NPV), and positive and negative likelihood ratios (LR+/LR-) of TVS were measured. **RESULTS:** 273 participants were included in the study with complete clinical, TVS, laparoscopic, and histological data. 256/273 (93.8%) participants were confirmed to have endometriosis histologically. Based on surgical visualization, 139/273 (50.9%) had an OE and 207/273 (75.8%) had DE. 190/273 (69.6%) had DE confirmed histologically. For overall DE, diagnostic performance of TVS based on surgical visualization as a reference was as follows: Acc 86.1%; Sens 88.4%; Spec 78.8%; PPV 92.9%; NPV 68.4%; LR+ 4.17; LR- 0.15. Diagnostic performance of TVS based on histology as a reference standard was as follows: Acc 85.9%; Sens 89.8%; Spec 75.9%; PPV 90.4%; NPV 74.6%; LR+ 3.71; LR- 0.14. **CONCLUSION:** A systematic approach to DE TVS is paramount, and the IDEA consensus approach allows for strong diagnostic accuracy. This study has found a higher TVS detection rate of overall DE than reported by the most recent meta-analysis on the topic (sensitivity 79%) but a lower specificity. This article is protected by copyright. All rights reserved.

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Factor de Impacto: 8.678

JCR Categoría: Acoustics; Obstetrics & Gynecology; Radiology, Nuclear Medicine & Medical Imaging

Posición: Acoustics 2/32; Obstetrics & Gynecology 4/85; Radiology, Nuclear Medicine & Medical Imaging 11/136

Q1

Neves AR, Montoya-Botero P, Polyzos NP.

Androgens and diminished ovarian reserve: The long road from basic science to clinical implementation. A comprehensive and systematic review with meta-analysis.

Am J Obstet Gynecol. 2022 Mar 29:S0002-9378(22)00248-4. doi: 10.1016/j.ajog.2022.03.051. Online ahead of print.

OBJECTIVE: 1) To present a narrative review regarding androgens' production, androgens' role in folliculogenesis and the available therapeutic approaches for androgen supplementation; 2) To perform a systematic review and meta-analysis regarding impact of androgens (Dehydroepiandrosterone/Testosterone) compared to placebo or no treatment on ovarian response and pregnancy outcomes in patients with diminished ovarian reserve and/or poor ovarian responders. **DATA SOURCES:** An electronic search of MEDLINE, EMBASE, The Cochrane, The Cochrane Central Register of Controlled Trials (CENTRAL), SCOPUS, the Central Register of Controlled Trials, Current Controlled Trials and the World Health Organization International Clinical Trials Registry was conducted up to September 2021. **STUDY ELIGIBILITY CRITERIA:** Randomized controlled trials that compared ovarian response and/or pregnancy outcomes between the different IVF protocols using androgens (i.e., dehydroepiandrosterone and testosterone) and conventional IVF stimulation in patients with diminished ovarian reserve and/or poor ovarian responders were included. **METHODS:** The quality of each study was evaluated with the Revised Cochrane risk-of-bias tool for randomized trials (RoB 2). The meta-analysis used random-effects models. All the results were interpreted based on intention-to-treat analysis (defined as the inclusion of all randomized patients in the denominator). Risk ratio (RR) and the 95% confidence intervals (CIs) were used and combined for meta-analysis. **RESULTS:** No significant differences were found regarding the number of oocytes retrieved (Mean Difference (MD) 0.76; 95%CI -0.35-1.88), mature oocytes retrieved (MD 0.25; 95%CI -0.27-0.76), clinical pregnancy rate (CPR) (Risk Ratio (RR) 1.17, 95%CI 0.87-1.57), live birth rate (LBR) (RR 0.97, 95%CI 0.47-2.01) or miscarriage rate (MR) (RR 0.80, 95%CI 0.29-2.22) when dehydroepiandrosterone priming was compared to placebo or no treatment. Testosterone pre-treatment yielded a higher number of oocytes retrieved (MD 0.94; 95%CI 0.46-1.42), a higher CPR (RR 2.07, 95%CI 1.33-3.20) and LBR (RR 2.09, 95%CI 1.11-3.95). **CONCLUSION:** While dehydroepiandrosterone did not present a clear effect on assisted reproductive techniques' outcomes, we found a potentially beneficial effect of testosterone priming on ovarian response and

pregnancy outcomes. However, results should be interpreted with caution taking into account the low to moderate quality of the available evidence.

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Factor de Impacto: 10.693

JCR Categoría: Obstetrics & Gynecology

Posición: 2/85

Q1

Polyzos NP, Ayoubi JM, Pirtea P.

General infertility workup in times of high assisted reproductive technology efficacy.

Fertil Steril. 2022 Jul;118(1):8-18. doi: 10.1016/j.fertnstert.2022.05.019.

The assessments of oocyte quality and quantity and endocrine profile have traditionally been the cornerstone of the general workup of couples with infertility. Over the years, several clinical, hormonal, and functional biomarkers have been adopted to assess ovarian function and identify endocrine disorders before assisted reproductive technology. Furthermore, the genetic workup of patients has drastically changed, introducing novel markers. This not only allowed the prediction of response to ovarian stimulation but also contributed toward the development of a safer and more efficient management of women undergoing assisted reproductive technology. The scope of this review is to provide an overview of the current and novel strategies adopted for the assessment of ovarian function and ovulatory and endocrine disorders in women planning to conceive. Furthermore, it aims to provide an insight in the role of novel genetic biomarkers and use of expanded carrier screening as part of preliminary workup of women with infertility.

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Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 7.490

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 6/85; Reproductive Biology 2/31

Q1

Roca-Feliu M, Clua E, García S, Polyzos NP, Martínez F.

Recipient outcomes in an oocyte donation programme: should very young donors be excluded?

Reprod Biomed Online. 2022 Jan 31:S1472-6483(22)00069-4. doi: 10.1016/j.rbmo.2022.01.013. Online ahead of print.

RESEARCH QUESTION: Does the oocyte donor's age affect live birth rate (LBR) in recipients? **DESIGN:** Retrospective study of 3766 oocyte recipient cycles carried out between January 2009 and December 2018. Cycles were categorized into groups according to donor's age: <20 years (4.7%); 20-25 years (41.1%); ≥26 years (54.2%). Chi-squared test was used to evaluate differences in LBR and analysis of variance was used to test differences in embryo quality, and fertilization and embryo development rates. A generalized linear mixed model was applied to estimate the odds for each end point. **RESULTS:** LBR was 40.7%. When analysed according to donors' age, significant differences were found: 33.9% for the youngest group, 39.1% for the group aged 20-25 years, and 42.5% for donors aged ≥26 years ($P = 0.022$). When adjusting for confounding factors (recipient age, number of transferred embryos and day of embryo transfer), LBR was lower in the group aged <20 years (OR 0.70; CI 95% 0.50 to 0.99) and in the group aged 20-25 years (OR 0.85; CI 95% 0.74 to 0.98) compared with the group aged ≥26 years. No significant differences were observed in fertilization rates (74.2%, 76.1% and 77.5%) or embryo development rates (57.0%, 61.4% and 62.0%). The number of good-quality embryos transferred was significantly lower in the group aged <20 years (1.03 ± 0.71 ; 1.18 ± 0.69 ; 1.19 ± 0.67 ; $P = 0.015$). **CONCLUSIONS:** LBR is significantly lower when donors are younger than 25 years and, especially, when they are younger than 20 years.

Indexado en: PubMed/WOS/JCR/Science Citation Index Expanded (SCIE)

Factor de Impacto: 4.567

JCR Categoría: Reproductive Biology; Obstetrics & Gynecology

Posición: Obstetrics & Gynecology 14/85; Reproductive Biology 7/31

Q1

Roelens C, **Racca A**, Mackens S, Van Landuyt L, Buelinckx L, Gucciardo L, Tournaye H, De Vos M, Blockeel C.

Artificially prepared vitrified-warmed embryo transfer cycles are associated with an increased risk of pre-eclampsia.

Reprod Biomed Online. 2022 May;44(5):915-922. doi: 10.1016/j.rbmo.2021.12.004. Epub 2021 Dec 25.

RESEARCH QUESTION: What is the association between the development of pre-eclampsia and endometrial preparation prior to vitrified-warmed embryo transfer (frozen embryo transfer, FET)? **DESIGN:** A retrospective cohort study at a tertiary university-based hospital, including a total of 536 pregnant patients who underwent a FET between 2010 and 2019 and delivered in the same institution; 325 patients underwent natural cycle FET (NC-FET) and 211 artificial cycle FET (AC-FET). **RESULTS:** Unadjusted, the incidence of pre-eclampsia was significantly higher in AC-FET cycles than in NC-FET cycles (3.7% versus 11.8%, $P < 0.001$). Multivariable logistic regression analysis showed that, when adjusting for type of endometrial preparation (artificial cycle versus natural cycle), oocyte recipient cycles and African ethnicity, the risk of developing pre-eclampsia was significantly associated with artificial endometrial preparation or oocyte recipient cycles (AC-FET versus NC-FET: odds ratio 2.9, 95% confidence interval 1.4-6.0, $P = 0.005$). **CONCLUSIONS:** The current data show a higher incidence of pre-eclampsia in AC-FET versus NC-FET cycles, adding further strength to the existing data on this topic. Together, these recent findings may result in a change in clinical practice, towards a preference for NC-FET cycles over AC-FET cycles in ovulatory patients. Screening for high-risk patients and the development of strategies to mitigate their risk profile could reduce the risk of pre-eclampsia. Further understanding of the different vasoactive substances excreted by the corpus luteum is vital.

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Q1

Índice-H HUDQ Global

78
H-Index

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

Número de veces citado al año



Citas y promedios de cita

Citas por documento, por año, en los últimos 5 años...

Índice H

Relaciona productividad e impacto. Un autor con índice $h=4$ nos dice que tiene 4 artículos con 4 citas cada uno.

WoS, Scopus y Google Scholar Citations ofrecen índice H.

Más información en nuestra [guía](#).

Impacto normalizado por área temática

Promedios mundiales de citas por año, categoría temática y tipo de documento. Sitúa los artículos por encima o debajo de la media, siempre normalizada en 1.

Top1%, Top10%, Highly Cited Papers, Category Normalized Citation Impact...

Factor de Impacto

Muestra la relevancia de una revista dentro de su área, en función del número de citas recibidas por sus artículos.

Con las citas recogidas en WoS se elabora el Journal Citation Report (JCR) y con las citas recogidas en Scopus, se elaboran dos indicadores de impacto, el Scimago Journal Ranking (SJR) y CiteScore, que nació en 2016.

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Altmétricas

Número de veces que un artículo es compartido, descargado o mencionado en los medios sociales, gestores de referencia y medios de comunicación.

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Colaboraciones

Se mide la colaboración internacional (coautores de instituciones fuera de España)

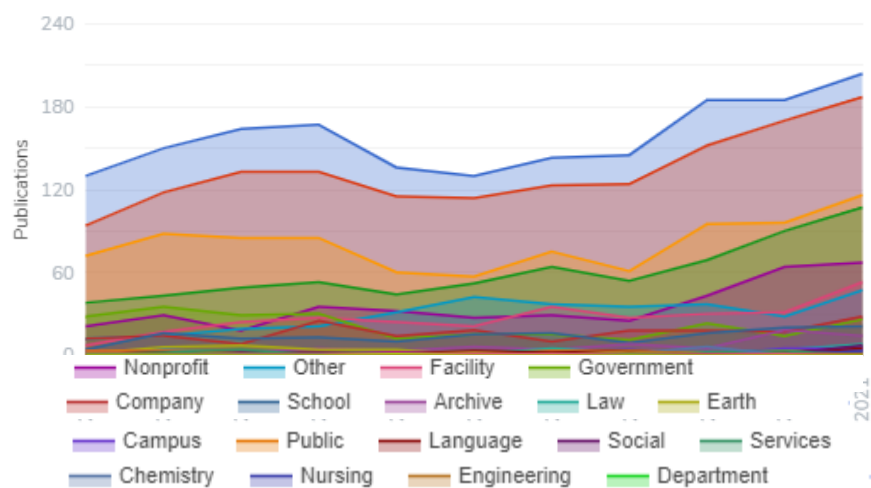
*Fuente: 2020 Journal Citation Reports (Clarivate, 2021)

Colaboraciones Internacionales

13,974 Collaborators in 87 countries



Collaboration Volume by Collaborator Type



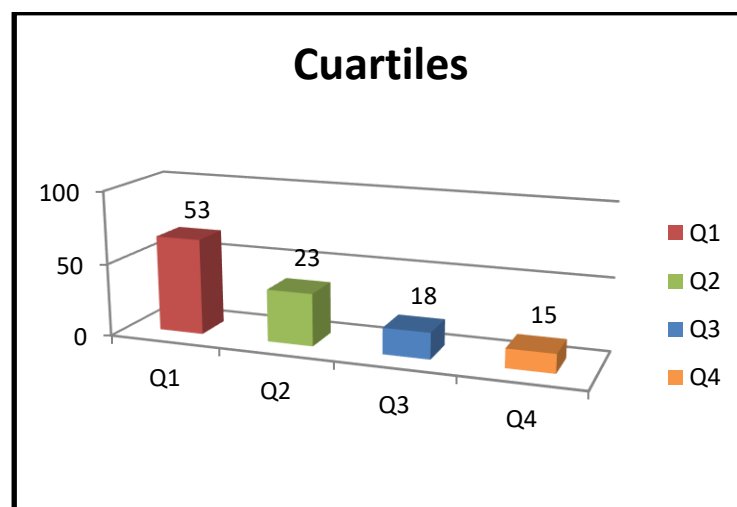
Publicaciones Científicas 2020



*Fuente: 2020 Journal Citation Reports (Clarivate, 2021)

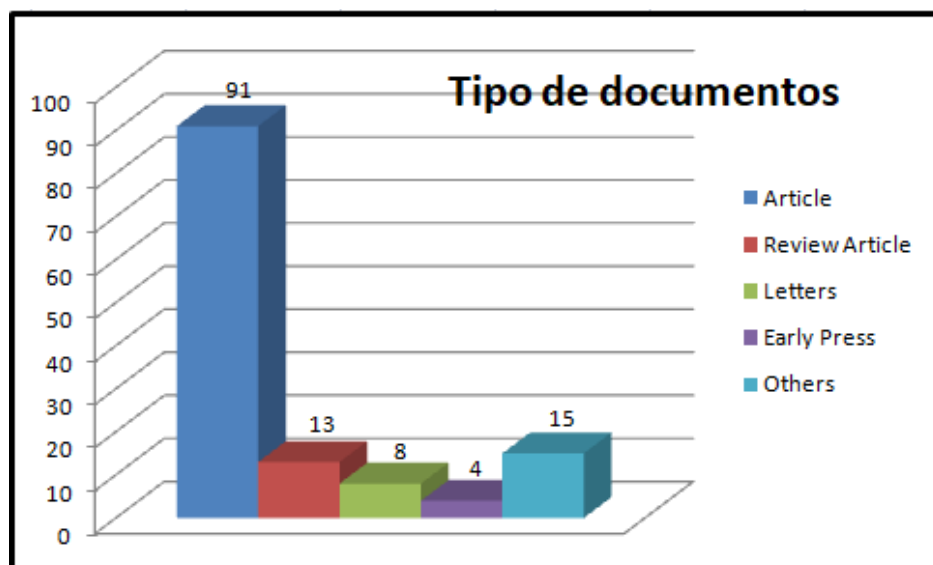
Cuartiles

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 según la categoría a la que pertenecen los artículos en la Web of Science en cuatro partes iguales según el % de los datos coincidiendo con la mediana.



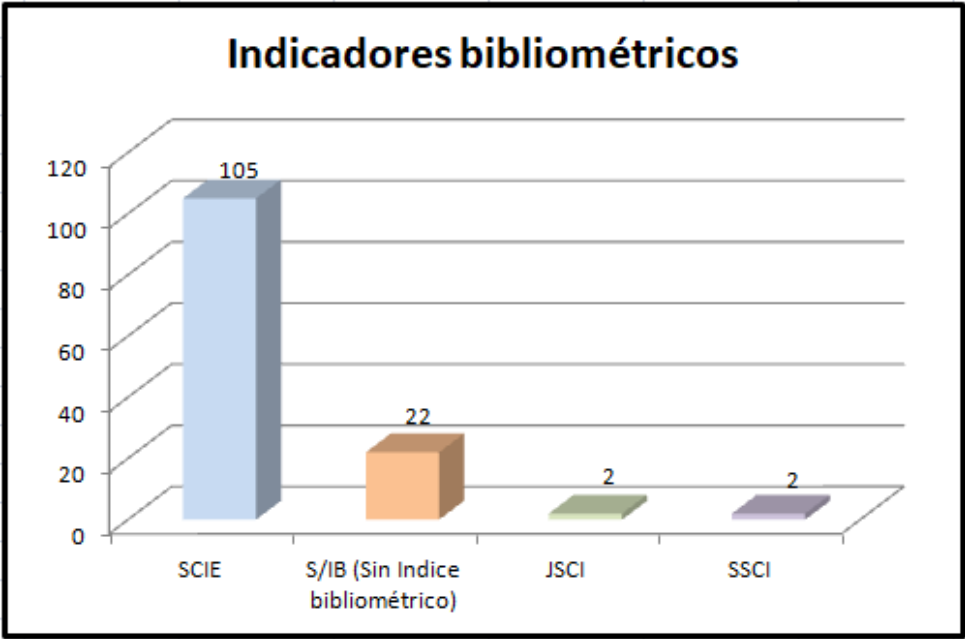
*Fuente: 2020 Journal Citation Reports (Clarivate, 2021)

Tipo de documentos



*Fuente: 2020 Journal Citation Reports (Clarivate, 2021)

Indicadores bibliométricos



*Fuente: 2020 Journal Citation Reports (Clarivate, 2021)