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Introduction: Because neonatal jaundice remains one of the most commonly treated conditions of the newborn infant, it is important to assess the unintended consequences of treatment with phototherapy. The objective of this study was to evaluate whether treatment with phototherapy affects breastfeeding duration in newborns >35 weeks gestation.

Materials and methods: We analyzed data from the Infant Feeding Practices Study II. The exposure of interest was treatment of neonatal jaundice with phototherapy. The outcomes of interest were any breastfeeding through 12 months and exclusive breastfeeding through 4 months. Logistic regression models were developed to evaluate the association between the exposure and outcomes of interest. All models were adjusted for maternal age, race, education, household income, and gestational age, as well as for several potential markers of suboptimal breastfeeding.

Results: Our study included 4,441 infants, of which 220 (5%) received phototherapy. We found no difference in the likelihood of any breastfeeding through 9 months of age, however, by 12 months, infants exposed to phototherapy were less likely to still be breastfed than those who were not exposed (adjusted odds ratio [aOR] 0.58, 95% confidence interval [95% CI] 0.37-0.92). Infants exposed to phototherapy were less likely to be exclusively breastfed throughout the first 4 months of life.

Conclusions: Although phototherapy use did not substantially impact rates of any breastfeeding during the first year, it was associated with decreased rates of exclusive breastfeeding in the first 4 months of life. This suggests that we need to tailor messaging to mothers of infants receiving phototherapy to promote exclusive breastfeeding.

خلفية البحث: يبقى اليرقان الوليدي أحد أشيع الحالات التي تتطلب المعالجة عند المواليد الرضع، ومن الأهمية بمكان تقييم الأبعادات المرتبطة على تطبيق المعالجة الضوئية. تهدف هذه الدراسة إلى تقييم مدى تأثير المعالجة الضوئية على مدة الرضاعة الطبيعية عند حديثي الولادة بعمر >35 أسبوعًا حملياً.

مواد وطريق البحث: تم تحويل معطيات دراسة الممارسات التغذوية عند الرضع II. تم التركيز على موضوع معالجة اليرقان الوليدي عبر المعالجة الضوئية. أما النتائج العامة للدراسة فشملت جميع أشكال التغذية الطبيعية عبر الإرضاع من الذي خلال فترة 12 شهرًا والتصديق الطبي الحراري من التي خلال فترة 4 أشهر. تم تطوير نماذج التحديث المنطقية لتقييم العلاقة بين التعرض والنتائج المدروسة lame. تم تعديل جميع النماذج بالنسبة لعمر الأم، العرق، درجة التعليم، الدخل المادي وعمر الحمل بالإضافة إلى عدة أسماء محتملة للإرضاع الطبيعي دون المستوى المثالي.

النتائج: شملت الدراسة 4441 من الرضع خضع 220 منهم للمعالجة الضوئية (نسبة 5%). لم يلاحظ وجود فروقات هامة في احتمالية الإرضاع الطبيعية حتى عمر 9 أشهر، إلا أنه تبين بعمر 12 شهراً أن الرضاع الخاضعين للمعالجة الضوئية كانا أقل احتمالية للإستمرار في الرضاعة الطبيعية مقارنة مع غير المتعارضين (نسبة الأرجحية المعنوية 0.58 0.37-0.92). كما أن الرضاع الخاضعين للمعالجة الضوئية كانوا أيضًا أقل احتمالية للرضاعة الطبيعية الحرارية خلال الأشهر الأربعة الأولى من العمر.

الاستنتاجات: على الرغم من عدم وجود تأثيرات هامة للمعالجة الضوئية على أي من معدلات الرضاعة خلال السنة الأولى من الحياة، إلا أن هذه المعالجة ترتبط مع نقص معدلات الرضاعة الطبيعية حرارية خلال الأشهر الأربعة الأولى من الحياة. تنتج هذه النتائج وجود حاجة لإدخال هذه الرسالة لأمهات الرضاع الخاضعين لهذه المعالجة لحضهن على تطبيق الرضاعة الطبيعية الحرارية بشكل أكبر.
Objective: The metabolic and cardiovascular risk of obesity is predominantly defined through the amount of intra-abdominal fat (IAF). Regarding this risk and the benefits of weight reduction gender-specific differences have been described. The aim of this study was to examine the gender-specific relationship between IAF assessed via ultrasound and the cardiometabolic risk profile in extremely obese adolescents before and after weight loss.

Methods: In 107 consecutively admitted adolescents (n=59 girls, mean age 15.4±2.6 years boys and 15.1±2.1 years girls, mean BMI z-score 3.2±0.6 boys and 3.5±0.6 girls) anthropometric and fasting laboratory chemical parameters were measured before and after an in-patient long-term therapy (mean durance 5.6±2.3 months). IAF was determined by measuring the intra-abdominal depth (IAD) via ultrasound.

Results: IAD was higher in boys as compared to girls (58.0±22.4 mm vs. 51.3±16.0 mm). IAD values were positively associated with BMI-z scores, waist circumferences, HOMA-IR and serum levels of x03B3;GT, hs-CRP and IL-6 in both genders. In boys, but not in girls, IAD was significantly correlated with systolic and diastolic blood pressure, serum levels of triglycerides, ALT as well as adiponectin and HDL-cholesterol. After a marked mean weight loss of -27.1±16.2 kg (-20.1±7.9%) in boys and of -20.5±11.5 kg (-17.3±7.1%) in girls, IAD decreased by -20.7±16.2 mm (-32.4±16.9%) in boys and by -18.4±12.7 mm (-34.3±18.4%) in girls, resulting in more pronounced ameliorations of cardiovascular risk factors in boys than in girls.

Conclusions: The present study indicates that IAF assessed by ultrasound is a good indicator for the cardiometabolic risk factor profile in extremely obese adolescents. Associations between IAF and risk factors are more pronounced in boys than in girls.
Efficacy of prenatal diagnosis of major congenital heart disease on perinatal management and perioperative mortality

Li YF, et al.

Background: There is no consensus on the effectiveness of prenatal diagnosis except for hospitalized outcomes. Hence, a meta-analysis of published literature was conducted to assess the effect of prenatal diagnosis.

Methods: Literature review has identified relevant studies up to December 2013. A meta-analysis was performed according to the guidelines from the Cochrane review group and the PRISMA statement. Studies were identified by searching PubMed, Embase, the Cochrane Central Register of Controlled Trials and World Health Organization clinical trials center. Meta-analysis was performed in a fixed/random-effect model using Revman 5.1.1 according to the guidelines from the Cochrane review group and the PRISMA guidelines.

Results: The results from 13 cohort studies in 12 articles were analyzed to determine the optimal treatment with the lower rate of perioperative mortality in prenatal diagnosis. The superiority of a prenatal diagnosis has been proven because the surgical procedure could be done in the early neonatal period (95%CI, -0.76, -0.40). The prenatal diagnosis has also remarkably reduced the preoperative and postoperative mortality rates in cases of transposition of the great arteries (95%CI=0.06, 0.80; 95%CI=0.01, 0.82, respectively), as well as the overall results with all subtypes (95%CI=0.18, 0.94; 95%CI=0.46, 0.94, respectively).

Conclusions: Prenatal diagnosis is effective in perinatal management with an earlier intervention for major congenital heart disease, but only results in a reduced perioperative mortality in cases of transposition of the great arteries. Further investigations are required to evaluate the effect of prenatal diagnosis on life quality during a long-term follow-up.
Early inhaled steroid use in extremely low birthweight infants

Nakamura T, et al.
Arch Dis Child Fetal Neonatal Ed 2016 Apr 8.

Objective: We hypothesised that a prophylactic inhaled steroid would prevent the progression of bronchopulmonary dysplasia (BPD) in extremely low birthweight infants (ELBWIs).

Design: This study was a multicentre, randomised, double-blinded, placebo-controlled trial.

Setting: This investigation was conducted in 12 level III neonatal intensive care units (NICUs).

Patients: A total of 211 ELBWIs requiring ventilator support were enrolled.

Intervention: Starting within 24 h of birth and continuing until 6 weeks of age or extubation, two doses of 50 μg fluticasone propionate (FP) or placebo were administered every 24 h.

Main outcome measurement: The primary outcome measure used to indicate the morbidity of severe BPD incidence was death or oxygen dependence at discharge from the NICU. The secondary measures were neurodevelopmental impairments (NDIs) at 18 months of postmenstrual age and 3 years of age. We performed subgroup analyses based on gestational week (GW) and the presence of chorioamnionitis (CAM).

Results: Infants were randomised into the FP (n=107) or placebo (n=104) groups. No significant differences were detected between the FP and placebo groups with respect to either the frequency of death or the oxygen dependence at discharge or NDIs. In subgroup analyses, the frequencies of death and oxygen dependence at discharge were significantly decreased in the FP group for infants born at 24-26 GWs and for infants with CAM, regardless of the GW at birth.

Conclusions: Inhaled steroids have no effect on the prevention of severe BPD or long-term NDI but might decrease the severity of BPD for ELBWIs with a risk factor.

هدف البحث: تم افتراض وجود دور وقائي للستيروئيدات الإنشاقية يفيد في منع تطور الداء في حالات عسر التصنع القصبي الرئوي عند المواليد شديدي انخفاض وزن الولادة. 

نمط البحث: تم إجراء دراسة متعددة المراكز، عشوائية، مزدوجة التعمية مضبوطة بمعالجة إرضائية.

مكان البحث: تم إجراء الاستقصاء في وحدات العناية المركزة لحديثي الولادة.

مرضى البحث: شملت الدراسة 211 من الأطفال شديدي انخفاض وزن الولادة احتاجوا إلى الدعم التنفسي.

التدخل: بدأ من الساعات الأولى بعد الولادة وبالاستمرار حتى الأسبوع 6 من عمر الرضيع أو حتى إزالة التنبيب، تم إعطاء جرعتين من fluticasone propionate (50 مكروغرام) أو المعالجة الإرضائية وذلك كل 24 ساعة.

قياس النتائج الرئيسية: اعتبرت الوفاة أو درجة الاعتماد على الأكسجين عند الخروج من وحدة العناية المركزة لحديثي الولادة كقياس للنتائج الرئيسية للتعبير عن مرضة عسر التصنع القصبي الرئوي (BPD) شديد، أما النتائج الثانوية فشملت حالات الإعاقة العصبية التطورية بعمر 18 شهراً من آخر.

تمت وعمر 3 سنوات. تم إجراء تحيل المجموعات الفرعية بناءً على الأسبوع الحمضي ووجود الالتهاب الكوريوني الأمينيسي (CAM). CAM كناطق النتائج (107 مريضي) ومجموعة المعالجة الإرضائية (104 مريضي). لم تلاحظ فروقات هامة بين المجموعتين بالنسبة لتوتارت الوفاة أو الاعتماد على الأكسجين عند الخروج أو الإعاقات العصبية التطورية.

المؤليدين بعمر 26-29 أسبوعاً والرضع بحالات الالتهاب الكوريوني الأمينيسي (CAM) وذلك بغض النظر عن الأسبوع الحمضي عند الولادة.

الاستنتاجات: لا تمتلك الستيروئيدات الإنشاقية تأثيرات وقائية في حالات عسر التصنع القصبي الرئوي أو الإعاقات العصبية التطورية، إلا أنها قد تقلل من شدة عسر التصنع القصبي الرئوي بالنسبة للمواليد شديدي انخفاض وزن الولادة ELBWIs كعامل خطورة.
Efficacy of oral corticosteroids in the treatment of acute wheezing episodes in asthmatic preschoolers


Rationale: Systemic corticosteroids (SCS) are used for treat preschoolers with acute asthma or wheezing exacerbations, with conflicting results.

Objective: To evaluate the effectiveness of oral corticosteroids (OCS) compared to placebo in preschoolers presenting with acute asthma/wheezing exacerbations.

Methods: Five electronic databases were searched for all placebo-controlled, randomized clinical trials of OCS in children <6 years of age presenting with recurrent wheezing/asthma exacerbations of any severity. Primary outcomes were hospitalizations, unscheduled emergency department (ED) visits in following month, need of additional OCS courses, and length of stay (ED or hospital).

Results: Eleven studies met inclusion criteria (n=1,733); four were conducted on an outpatient basis, five in inpatients, and two in the ED. Significant heterogeneity was found when pooling all studies, and thus analysis was stratified by trial setting. Among the outpatient studies, children who received OCS had a higher hospitalization rate (RR: 2.15 [95%CI = 1.08-4.29], I^2=0%) compared to those to received placebo. Among the ED studies, children who received OCS had a lower risk of hospitalization (RR: 0.58 [0.37-0.92], I^2=0%). Among the inpatient studies, children who received OCS needed fewer additional OCS courses than those on placebo (RR: 0.57 [0.40-0.81], I^2=0%).

Conclusions: Treatment with OCS in the ED or hospital may be beneficial in toddlers and preschoolers with frequent asthma/wheezing exacerbations. However, more studies are needed before OCS can be broadly recommended for this age group. Future trials should be carefully designed to avoid bias and according to our findings regarding administration setting.
The use of assisted reproductive technologies (ART) has increased steadily. There has been a corresponding increase in the number of ART-related procedures such as hysterosalpingography (HSG), saline infusion sonography (SIS), hysteroscopy, laparoscopy, oocyte retrieval, and embryo transfer (ET). While performing these procedures, the abdomen, upper vagina, and endocervix are breached, leading to the possibility of seeding pelvic structures with microorganisms. Antibiotic prophylaxis is therefore important to prevent or treat any procedure-related infections. After careful review of the published literature, it is evident that routine antibiotic prophylaxis is generally not recommended for the majority of ART-related procedures. For transcervical procedures such as HSG, SIS, hysteroscopy, ET, and chromotubation, patients at risk for pelvic infections should be screened and treated prior to the procedure. Patients with a history of pelvic inflammatory disease (PID) or dilated fallopian tubes are at high risk for postprocedural infections and should be given antibiotic prophylaxis during procedures such as HSG, SIS, or chromotubation. Antibiotic prophylaxis is recommended prior to oocyte retrieval in patients with a history of endometriosis, PID, ruptured appendicitis, or multiple prior pelvic surgeries.

Antibiotic prophylaxis for gynecologic procedures prior to and during the utilization of assisted reproductive technologies

Pereira N, et al.

Objective: To evaluate gynecologic safety of conjugated estrogens/bazedoxifene treatment for menopausal symptoms and osteoporosis prevention in nonhysterectomize women.

Materials and methods: We pooled data from five randomized, placebo-controlled trials of conjugated estrogens 0.625 mg/bazedoxifene 20 mg (n=1583), conjugated estrogens 0.45 mg/bazedoxifene 20 mg (n=1585), and placebo (n=1241). Gynecologic safety was evaluated by pelvic examination, Papanicolaou smear, endometrial biopsy, transvaginal ultrasound, mammogram, adverse events, and diary records of vaginal bleeding and breast pain/tenderness. Incidence rates and relative risks (RR) versus placebo were calculated with inverse variance weighting. Data for conjugated estrogens 0.45 mg/medroxyprogesterone acetate 1.5 mg, an active comparator in two trials (n=399), are included for comparison.

Results: Endometrial hyperplasia occurred in <1% (n=4 [0.3%], 2 [0.2%], 1 [0.5%], and 2 [0.2%]) for conjugated estrogens 0.625 mg/bazedoxifene 20 mg, conjugated estrogens 0.45 mg/bazedoxifene 20 mg, conjugated estrogens/medroxyprogesterone acetate, and placebo. There was one endometrial cancer, which occurred with conjugated estrogens 0.45 mg/bazedoxifene 20 mg (0.44/1000 woman-years [95% confidence interval (CI), 0.00-2.37]; RR versus placebo 0.91 [95% CI, 0.17-4.82]). There were seven cases of breast cancer: four with conjugated estrogens 0.45 mg/bazedoxifene 20 mg (1.00/1000 woman-years [95% CI, 0.00-3.21] RR 1.11 [95% CI, 0.33-3.78]), two with placebo, and one with conjugated estrogens/medroxyprogesterone acetate. Unlike conjugated estrogens/medroxyprogesterone acetate, conjugated estrogens/bazedoxifene did not increase breast density, breast pain/tenderness, or vaginal bleeding versus placebo. No active treatment increased ovarian cysts.

Conclusion: Conjugated estrogens/bazedoxifene provides endometrial protection without increasing breast pain/density, vaginal bleeding, or ovarian cysts in nonhysterectomized postmenopausal women studied up to 2 years.
Prognostic factors of the efficacy of high-dose corticosteroid therapy in pregnancy

Yang L, et al.
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The aim of this study was to identify the factors which can affect the efficacy of corticosteroid (CORT) therapy in the management of hemolysis, elevated liver enzymes, and low platelet count (HELLP) syndrome. Research articles reporting the efficacy of CORT therapy to HELLP syndrome patients were searched in several electronic databases including EMBASE, Google Scholar, Ovid SP, PubMed, and Web of Science. Study selection was based on predefined eligibility criteria. Efficacy was defined by the changes from baseline in HELLP syndrome indicators after CORT therapy. Meta-analyses were carried out with Stata software. Data of 778 CORT-treated HELLP syndrome patients recruited in 22 studies were used in the analyses. Corticosteroid treatment to HELLP syndrome patients was associated with significant changes from baseline in platelet count; serum levels of aspartate aminotransaminase, alanine transaminase, and lactate dehydrogenase (LDH); mean blood pressure; and urinary output. Lower baseline platelet count predicted higher change in platelet count after CORT therapy. Lower baseline platelet count and lower baseline urinary output predicted greater changes in LDH levels after CORT therapy. There was also an inverse relationship between the change from baseline in LDH levels and intensive care duration. Higher CORT doses were associated with greater declines in the aspartate aminotransaminase, alanine transaminase, and LDH levels. Incidence of cesarean delivery was inversely associated with the gestation age. The percentage of nulliparous women had a positive association with the intensive care stay duration. High-dose CORT therapy to HELLP syndrome patients provides benefits in improving disease markers and reducing intensive care duration, especially in cases such as mothers with much lower baseline platelet count and LDH levels.
Treatment of early stage endometrial cancer by transumbilical laparoscopic single-site surgery versus traditional laparoscopic surgery

Cai HH, et al.

To compare the outcomes of transumbilical laparoscopic single-site surgery (TU-LESS) versus traditional laparoscopic surgery (TLS) for early stage endometrial cancer (EC). We retrospectively reviewed the medical records of patients with early stage EC who were surgically treated by TU-LESS or TLS between 2011 and 2014 in a tertiary care teaching hospital. We identified 18 EC patients who underwent TU-LESS. Propensity score matching was used to match this group with 18 EC patients who underwent TLS. All patients underwent laparoscopic-assisted vaginal hysterectomy, bilateral salpingo-oophorectomy, and systematic pelvic lymphadenectomy by TU-LESS or TLS without conversion to laparoscopy or laparotomy. Number of pelvic lymph nodes retrieved, operative time and estimated blood loss were comparable between 2 groups. Satisfaction values of the cosmetic outcome evaluated by the patient at day 30 after surgery were significantly higher in TU-LESS group than that in TLS group (9.6±0.8 vs 7.5±0.7, P<0.001), while there was no statistical difference in postoperative complications within 30 days after surgery, postoperative hospital stay, and hospital cost. For the surgical management of early stage EC, TU-LESS may be a feasible alternative approach to TLS, with comparable short-term surgical outcomes and superior cosmetic outcome. Future large-scale prospective studies are needed to identify these benefits.
Primary endoscopic trans-nasal trans-sphenoidal surgery for giant pituitary adenoma

Kuo CH, et al.

Objectives: Giant pituitary adenoma (>4 centimeters, GPA) remains challenging because the optimal surgical approach is uncertain.

Methods: Consecutive patients with GPA who underwent endoscopic trans-nasal trans-sphenoidal surgery (ETTS) as the first and primary treatment were retrospectively reviewed. Inclusion criteria were tumor diameter ≥4 cm in at least one direction, and tumor volume ≥10 cm³. Exclusion criteria were follow-ups <2 years and pathologies other than pituitary adenoma. All the clinical and radiological outcomes were evaluated.

Results: A total of 38 patients, averaged 50.8 years, were analyzed with a mean follow-up of 72.9 months. All patients underwent ETTS as the first and primary treatment, and 8 (21.1%) had complete resection without any evidence of recurrence at the latest follow up. Overall, mean tumor volume decreased from 29.7 to 3.2 cm³ after surgery. Residual and recurrent tumors (n=30) were managed with one of the following: gamma knife radiosurgery (GKRS), re-operation (redo ETTS), both GKRS and ETTS, medication, conventional radiotherapy, or neither. At last follow up, majority of the patients had favorable outcomes, including 8 (21.1%) were cured and 29 (76.3%) had stable residual without progression. Only one (2.6%) had late recurrence at post-GKRS 66 months. The overall progression-free rate was 97.4% with few complications.

Conclusions: In this series of GPA, primary (i.e. the first) ETTS yielded complete resection and cure in 21.1%. Along with adjuvant therapies, including GKRS and others, most (97.4%) of them were stable and free of disease progression. Therefore, primary ETTS appeared to be an effective surgical approach for GPA.
Transanal endoscopic surgery for complications of prior rectal surgery


**Background:** Long-term complications of previous rectal surgery (e.g., enterovisceral fistula, anastomotic stricture, rectal stenosis) can be challenging problems for which transabdominal or transperineal surgery with or without definitive fecal diversion is often required. Transanal endoscopic surgery (TES) might allow for local treatment of these complications, thereby saving patients from otherwise major surgery.

**Patients and methods:** All patients undergoing TES in the IJsselland Hospital (NL) since 1996 were recorded in a prospective database, of which twenty patients were treated for complications after previous rectal surgery. Data on prior treatment, surgical techniques, outcomes, and need for additional surgery were collected.

**Results:** Twenty patients were identified from the database (rectourinary fistula n=3, rectovaginal fistula n=5, anastomotic stricture n=8, and rectal stenosis n=4). One of the three (33%) rectourinary fistulas and two of five (40%) rectovaginal fistulas were successfully treated with TES. Anastomotic strictures were successfully treated in 5/8 (63%) patients. Strictures after local excision of rectal tumors were successfully treated in 3/4 (75%) patients. No minor complication and one major complication occurred (rectovaginal fistula after stenoplasty eventually requiring Hartmann’s procedure).

**Conclusions:** Transanal treatment of anastomotic strictures, rectal stenosis, and fistula after prior rectal surgery is safe and effective in a large proportion of patients. TES should be considered as a first step in all patients presenting with these late complications after rectal surgery.
The radiological features, diagnosis and management of screen-detected lobular neoplasia of the breast


Objectives: To investigate the radiological features, diagnosis and management of screen-detected lobular neoplasia (LN) of the breast.

Materials and methods: 392 women with pure LN alone were identified within the prospective UK cohort study of screen-detected non-invasive breast neoplasia (the Sloane Project). Demography, radiological features and diagnostic and therapeutic procedures were analysed.

Results: Non-pleomorphic LN (369/392) was most frequently diagnosed among women aged 50-54 and in 53.5% was at the first screen. It occurred most commonly on the left (58.0%; \( p=0.003 \)) in the upper outer quadrant and confined to one site (single quadrant or retroareolar region). No bilateral cases were found. The predominant radiological feature was microcalcification (most commonly granular) which increased in frequency with increasing breast density. Casting microcalcification as a predominant feature had a significantly higher lesion size compared to granular and punctate patterns \( (p=0.034) \). 326/369 (88.3%) women underwent surgery, including 17 who underwent >1 operation, six who had mastectomy and six who had axillary surgery. Two patients had radiotherapy and 15 had endocrine treatment. Pleomorphic lobular carcinoma in situ (23/392) presented as granular microcalcification in 12; four women had mastectomy and six had radiotherapy.

Conclusion: Screen-detected LN occurs in relatively young women and is predominantly non-pleomorphic and unilateral. It is typically associated with granular or punctate microcalcification in the left upper outer quadrant. Management, including surgical resection, is highly variable and requires evidence-based guideline development.

خلفية البحث: استقصاء الخصائص الشعاعية، التشخيص والتدبير لحالات التنشؤات الفصيصية المكتشفة بالمسح في الثدي.

مواد وطرق البحث: تم تضمين 392 من النساء ده بناء انتهاز حالة تنشؤات فصيصية LN في النيتي ضمن دراسة أترابية مستقلة في المملكة المتحدة لتي بلت التنشؤات غير الغازية المكتشفة بالمسح في الثدي (مشروع Sloane). تم تحليل الملاحظات السكانية، الموجودات الشعاعية والإجراءات التشخيصية والعلاجية المتبعة في هذه الحالات.

النتائج: نبض أن العدد المعتدده الأشكال كانت الأكثر تواتراً من ناحية التشخيص عند النساء بعمر بين 50 و 54 سنة (369 حالة من أصل 392)، وقد كشفت في 53.5% من الحالات بالمسح الأول، وقد وُجدت بشكل أكثر شائعاً في الجانب الأيسر (58.0%; \( p=0.003 \)) في الربع العلوي الخارجي، كما كانت محدودة في مكان واحد (ربع واحد أو في المنطقة خلف اللعوة). تم تحليل حالات ثنائية الجانب. بين أن المظهر الشعاعي السيطر هو التكلسات الدقيقة (الأشكال الحبيبية) والتي زادت تواتراً بزيادة كثافة الثدي، أما التكلسات الدقيقة الاستوائية كمظهر مسيطر فقد تراوحت مع الأفات الأكبر حجماً بالمقارنة مع التكلسات الحبيبية أو التكلسات المرقطة \( (p=0.034) \). ضمت 326 من النساء للجراحة (نسبة 88.3%), من ضمنهن 17 خضعن للاستئصال الثديي، 6 خضعن لجراحة إبطية. عولجت مريضتان بالمعالجة الشعاعية كما عولجت 15 أخيرات معالجة غدية صمائية. ظهرت السرطانات الفصيصية متعدد الأشكال في الموضع (23 من أصل 392 حالة) على شكل تكلسات دقيقة حبيبية في 12 حالة، خضعت 4 حالات للاستئصال الثديي، و 6 معالجة شعاعية.

الاستنتاجات: تحدث التنشؤات الفصيصية المكتشفة بالمسح عند النساء الشابات نسبياً و تكون وحيدة الجانب غير متعدد الأشكال عادة. تلاحظ هذه الحالات نموذجية على شكل تكلسات دقيقة حبيبية في الربع العلوي الخارجي من الثدي. يتميز تدبير هذه الحالات ومن ضمنه التدبير الجراحي بتغيرات كبيرة ويتطلب تطوير دليل موجه مثبت.
Thyroid lobectomy is an effective option for unilateral benign nodular disease

objective: The use of thyroid lobectomy in the treatment of unilateral, benign nodules is limited by the potential of nodular recurrence in the remaining lobe. This study aimed to assess the rate and clinical impact of nodular recurrence in the contralateral lobe after thyroid lobectomy and to identify predictive factors of recurrence.

Design: Single-center retrospective study.

Patients: Records of patients that underwent lobectomy for unilateral thyroid nodules between 1991 and 2010 were reviewed and 270 patients were included. Exclusion criteria were: presence of contralateral node(s) ≥5 mm on preoperative ultrasound, diagnosis of cancer necessitating completion thyroidectomy or pseudonodules. Recurrence was defined as the occurrence of node(s) ≥5 mm in the remaining lobe on at least one postoperative ultrasound. A set of clinical, imaging, histological and biochemical parameters was tested as predictors of recurrence using logistic regression.

Results: After a median follow-up of 78 months (range, 12-277 months), the global recurrence rate was 42% and recurrence of nodules of a size ≥1 cm occurred in 19%. Reoperation rate was 1.1%. 90% of patients were treated postoperatively by levothyroxine. Median time to nodular recurrence was 4 years. Preoperative contralateral lobe volume and resected thyroid weight were identified as significant predictors of recurrence (p=0.045 and p=0.03 respectively).

Conclusions: Thyroid lobectomy is an effective therapeutic strategy for unilateral, benign nodules, resulting in a low rate of clinically relevant nodular relapse in a mildly iodine-deficient area. Patients with uninodular disease and a contralateral lobe of normal size are particularly good candidates for lobectomy.
Background: The aim of this meta-analysis was to evaluate the diagnostic accuracy of magnetic resonance angiography (MRA) for acute pulmonary embolism (PE).

Methods: A systematic literature search was conducted that included studies from January 2000 to August 2015 using the electronic databases PubMed, Embase and Springer link. The summary receiver operating characteristic (SROC) curve, sensitivity, specificity, positive likelihood ratios (PLR), negative likelihood ratios (NLR), and diagnostic odds ratio (DOR) as well as the 95% confidence intervals (CIs) were calculated to evaluate the diagnostic accuracy of MRA for acute PE. Meta-disc software version 1.4 was used to analyze the data.

Results: Five studies were included in this meta-analysis. The pooled sensitivity (86%, 95% CI: 81% to 90%) and specificity (99%, 95% CI: 98% to 100%) demonstrated that MRA diagnosis had limited sensitivity and high specificity in the detection of acute PE. The pooled estimate of PLR (41.64, 95% CI: 17.97 to 96.48) and NLR (0.17, 95% CI: 0.11 to 0.27) provided evidence for the low missed diagnosis and misdiagnosis rates of MRA for acute PE. The high diagnostic accuracy of MRA for acute PE was demonstrated by the overall DOR (456.51, 95% CI: 178.38-1168.31) and SROC curves (AUC=0.9902±0.0061).

Conclusions: MRA can be used for the diagnosis of acute PE. However, due to limited sensitivity, MRA cannot be used as a stand-alone test to exclude acute PE.
Effects of vitamin D on cardiac function in patients with chronic HF

Witte KK, et al.

Background: Patients with chronic heart failure (CHF) secondary to left ventricular (LV) systolic dysfunction (LVSD) are frequently deficient in vitamin D. Low vitamin D levels are associated with a worse prognosis. It is unclear whether vitamin D deficiency is a marker of disease severity or plays a pathophysiological role.

Objectives: The VitamIN D treatIng patients with Chronic heArT failurE (VINDICATE) study was designed to establish the safety and efficacy of high-dose vitamin D supplementation in patients with CHF due to LVSD.

Methods: We enrolled 229 patients (179 men) with CHF due to LVSD and vitamin D deficiency ($25(OH)$ vitamin D$_3$ <50 nmol/L (<20 ng/mL)) into a randomised, placebo-controlled double-blind trial of vitamin D supplementation. Participants were either allocated to one year of vitamin D$_3$ supplementation (4000 IU (100 μg) 25 $(OH)$D$_3$ daily) or matching non-calcium-based placebo. The primary endpoint was change in six-minute walk distance from baseline to 12 months. Pre-specified secondary endpoints included change in left ventricular ejection fraction at one year, and safety measures of renal function and serum calcium concentration assessed every three months.

Results: One year of high-dose vitamin D supplementation did not improve 6-minute walk distance at one year, but was associated with a significant improvement in cardiac function on echocardiography (left ventricular ejection fraction +6.07% (95% CI 3.20, 8.95; p<0.0001) and a reversal of left ventricular remodeling (left ventricular end diastolic diameter -2.49 mm (95% CI -4.09, -0.90; p=0.002) and left ventricular end systolic diameter -2.09 mm (95% CI -4.11, -0.06 p=0.043). There were no clinically significant effects on calcium levels or renal function.

Conclusions: One year of 100 μg daily 25-OH vitamin D$_3$ supplementation does not improve 6-minute walk distance but has beneficial effects on LV structure and function in patients on contemporary optimal medical therapy. Further studies are necessary to determine whether these translate to improvements in outcomes.
Combined elevated levels of the proinflammatory cytokines IL-18 and IL-12 are associated with clinical events in patients with coronary artery disease

Background: Interleukin (IL)-18 in synergy with IL-12 is critical in the initiation and progression of Th-1-type responses. IL-18 and IL-12 elevation has been associated with atherosclerosis, and their interaction is hypothesized to partly be driven by glucose. We aimed to explore if simultaneous elevation of IL-18 and IL-12, as related to glucose levels, would influence the prognosis in coronary artery disease (CAD).

Methods: Patients (n=1001) with angiographically verified stable CAD were investigated (78% men, mean age 62 years, 20% current smokers). IL-18 and IL-12 were measured by conventional ELISA methods. High fasting glucose (FG) was defined as the 75 percentile, that is, >6.2 mmol/L.

Results: After 2-year follow-up, 100 cardiovascular endpoints (fatal and nonfatal acute myocardial infarction, unstable angina, and stroke) were recorded. Subjects with simultaneous (not separate) levels in upper tertiles of both markers were at higher risk of cardiovascular events, compared to subjects in lowest tertile of both (odds ratio = 1.70, 95% confidence interval 1.11-2.61, adjusted P=0.016), with no influence of high FG. Hyperglycemia associated with higher IL-18 levels (adjusted P=0.009) and IL-12 levels was considerably lower in current smokers (adjusted P<0.001).

Conclusions: Simultaneous elevated circulating levels of IL-18 and IL-12 increased the event rate after 2 years in CAD patients, independent of hyperglycemia.
Background and aims: Diet plays a role in the onset and progression of metabolic disorders, including non-alcoholic fatty liver disease (NAFLD) and metabolic syndrome (MetS). We aimed to systematically review and perform quantitative analyses of results from observational studies on coffee/tea consumption and NAFLD or MetS.

Methods: A Medline and Embase search was performed to retrieve articles published up to March 2015. We used a combination of the keywords “coffee”, “caffeine”, “tea”, “non-alcoholic fatty liver disease”, “non-alcoholic steatohepatitis”, “metabolic syndrome”. Pooled risk ratios (RRs) and 95% confidence intervals (CIs) were calculated by random-effects model.

Results: Seven studies assessed coffee consumption in NAFLD patients. Fibrosis scores were reported in four out of seven; all four studies revealed an inverse association of coffee intake with fibrosis severity, although the lack of comparable exposure and outcomes did not allow to perform pooled analysis. Seven studies met the inclusion criteria to be included in the meta-analysis on coffee consumption and MetS. Individuals consuming higher quantities of coffee were less like to have MetS (RR=0.87, 95% CI: 0.79-0.96). However, the association of coffee and individual components of MetS was not consistent across the studies. Pooled analysis of six studies exploring the association between tea consumption and MetS resulted in decreased odds of MetS for individuals consuming more tea (RR=0.83, 95% CI: 0.73-0.95).

Conclusions: Studies on coffee and NAFLD suggest that coffee consumption could have a protective role on fibrosis. Both coffee and tea consumption are associated with less likelihood of having MetS but further research with better designed studies is needed.
Risk factors for diabetes mellitus in chronic pancreatitis

Diabetes mellitus (DM) is a common complication of chronic pancreatitis (CP) and increases the mortality. The identification of risk factors for DM development may contribute to the early detection and potential risk reduction of DM in patients with CP. Patients with CP admitted to Shanghai Hospital (Shanghai, China) from January 2000 to December 2013 were enrolled. Cumulative rates of DM after the onset of CP were calculated by Kaplan-Meier method. Risk factors for DM development after the diagnosis of CP were identified by Cox proportional hazards regression model. A total of 2011 patients with CP were enrolled. During follow-up (median duration, 22.0 years), 564 patients developed DM. Cumulative rates of DM 20 and 50 years after the onset of CP were 45.8% (95% confidence interval [CI], 41.8%-50.0%) and 90.0% (95% CI, 75.4%-97.7%), respectively. Five risk factors for DM development after the diagnosis of CP were identified: male sex (hazard ratio [HR], 1.51; 95% CI, 1.08-2.11), alcohol abuse (HR, 2.00; 95% CI, 1.43-2.79), steatorrhea (HR, 1.46; 95% CI, 1.01-2.11), biliary stricture (HR, 2.25; 95% CI, 1.43-3.52), and distal pancreatectomy (HR, 3.41; 95% CI, 1.80-6.44). In conclusion, the risk of developing DM in patients with CP is not only influenced by the development of biliary stricture and steatorrhea indicating disease progression, and inherent nature of study subjects such as male sex, but also by modifiable factors including alcohol abuse and distal pancreatectomy.

Pan J, et al.
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Hematology And Oncology

أمراض الدم والأورام

Risk factors and co-morbidities in adolescent thromboembolism are different than those in younger children

اختلاف عوامل الخطورة والمرضى المرافقة لحالات الإنصمام الخثري عند المراهقين عن المراهقين عند الأطفال الأصغر عمراً

Ishola T, et al.

Introduction: In adolescent thromboembolism (TE), multiple risk factors (RFs) and co-morbidities (CMs) are reported, though overall prevalence has not been evaluated. We hypothesized that the spectrum of RFs/CMs in adolescent TE differs from children overall and sought to review Texas Children’s Hospital’s experience.

Patients and methods: Medical records of adolescents aged 12-21 years, diagnosed with arterial or venous TE (AT/DVT) from 2004 to 2014, were retrospectively reviewed and analyzed with IRB approval.

Results: Sixty-four adolescents (median age 16, range 12-20 years) met study criteria. Fifty-seven (89%) had DVT and six (9%) had AT. Associated RFs/CMs included obesity (47%), CVC (27%), infection (27%), surgery (27%), autoimmune disease (19%), immobility (22%), anatomical abnormality (20%), cancer (8%), estrogen therapy (6%), tobacco use (6%), trauma (3%), inherited thrombophilia (19%), and other medical conditions (11%). Fifty-two (81%) had ≥2 RFs/CMs. Therapy included anticoagulants, antiplatelet agents, and interventional therapy. Of those with follow-up imaging, 49 had complete or partial resolution, 5 had no change and 4 had progression. Fourteen (22%) had recurrent TE. The majority with recurrent TE (79%) had ≥2 RFs at initial diagnosis. Mean time to recurrence was 4.80 years; time to recurrence was shorter for occlusive TE (p=0.026).

Conclusion: Adolescent TE is often multi-factorial with the majority having ≥2 RFs at diagnosis, suggesting the need for detailed evaluation for RFs in this population, which may enable optimal management including thromboprophylaxis, and institution of RF-modifying strategies to prevent occurrence/recurrence.
Context: Skeletal deterioration, leading to an increased risk of fracture, is a known complication of type 2 diabetes mellitus (T2D). Yet plausible mechanisms to account for skeletal fragility in T2D have not been clearly established.

Objective: To determine whether bone material properties, as measured by reference point indentation, and advanced glycation endproducts (AGEs), as determined by skin autofluorescence (SAF), are related in patients with T2D.

Design: Cross-sectional study.

Setting: Tertiary medical center.

Patients: Sixteen postmenopausal women with T2D and 19 matched controls.

Main outcome measures: Bone material strength index (BMSi) by in vivo reference point indentation, AGE accumulation by SAF and circulating bone turnover markers.

Results: BMSi was reduced by 9.2% in T2D (p=0.02) and was inversely associated with duration of T2D (r= -0.68, p= 0.004). Increased SAF was associated with reduced BMSi (r= -0.65, p=0.006) and lower bone formation marker procollagen type 1 amino-terminal propeptide (r= -0.63, p=0.01) in T2D, while no associations were seen in controls. SAF accounted for 26% of the age-adjusted variance in BMSi in T2D (p=0.03).

Conclusions: Bone material properties are impaired in postmenopausal women with T2D as determined by reference point indentation. The results suggest a role for the accumulation of AGEs to account for inferior BMSi in T2D.
Dental loss among ambulatory patients with diabetes

Izuora KE, et al.

**Aims:** There is a high prevalence of dental loss among patients with diabetes. Understanding the factors that impact dental loss in this population will aid with developing new strategies for its prevention.

**Methods:** Using a cross-sectional study design, diabetes patients presenting for routine clinic visit were evaluated with an investigator-administered questionnaire. Data was collected on demographics, dental history, duration, control and complications of diabetes.

**Results:** Among 202 subjects, 100 were female, mean age: 58.9±13.2 years, duration of diabetes: 15.8±11.0 years, and hemoglobin A1c: 7.7±1.6%. Thirty-one patients (15.3%) had lost all their teeth and only 13 (6.4%) had all 32 of their natural teeth. Using multiple linear regression, older age (β= -0.146; 95% CI: -0.062 to -0.230), not flossing (β= -3.462; 95% CI: -1.107 to -5.817), and presence of diabetic retinopathy (β= -4.271; 95% CI: -1.307 to -7.236) were significant predictors of dental loss.

**Conclusions:** Dental loss is common in patients with diabetes and is associated with older age, diabetic retinopathy and not flossing. In order to reduce dental loss among patients with diabetes, regular flossing should be emphasized as an important component of dental care.

**هذا البحث:** يوجد انتشار عال لفقدان الأسنان عند مرضى الداء السكري. إن فهم العوامل التي تؤثر على فقدان الأسنان لدى هذه المجموعة من المرضى سوف يساعد على تطوير خطط جديدة لوقاية من هذه الحالة مستقبلاً.

**طرق البحث:** تم من خلال دراسة مقطعية مستعرضة تقييم مرضى الداء السكري خلال زيارة روتينية للعلاج من خلال استبيان يتم فحصه قبل الفحص، تم جمع بيانات حول العوامل السكانية، القصة السنية، مدة الداء السكري، درجة ضبط الداء والاختلاطات الملاحقة.

**النتائج:** من بين 202 مريضاً، يوجد 100 أنثى، بمتوسط عمر 58.9±13.2 سنة، مدة الاداء السكري 15.8±11.0 سنة، ومستوى السكري في الدم (HbA1c) 7.7±1.6%. في حين اكتشف السكري 31 مريضاً (15.3%) حيث فقدوا جميع الأسنان، 13 مريضاً (6.4%) أسنانهم، بفضلية من خلال التحليل الخطي المتعدد، كان عمر المريض (β= -0.146؛ 95% للثقة من -0.062 إلى -0.230) وانعدام الاستخدام الجيب السني (β= -3.462؛ 95% للثقة من -1.107 إلى -5.817) ووجود التحاليل السكري (β= -4.271؛ 95% للثقة من -1.307 إلى -7.236) عوامل خطيرة مهمة في فقدان الأسنان.

**الاستنتاجات:** يعتبر فقدان الأسنان من الأمور الشائعة عند مرضى الداء السكري وترافق مع مدة الديابز واعتلال السكرية ودعم استخدام الخيط السني. وبغية الوقاية من فقدان الأسنان عند مرضى السكري يجب التأكيد على استخدام الخيط السني كجزء هام من عملية العناية بالأسمى.
Cardiovascular risk is an important factor for increased morbidity and mortality in patients with ankylosing spondylitis. The aim of this study is to assess arterial stiffness in relation to the disease activity and functional limitation in patients with ankylosing spondylitis. Twenty-four patients (mean age 45.8±11.7 years) suffering of ankylosing spondylitis (disease duration 11.1±5.1 years) and 24 gender and age-matched healthy controls were included in the study. Clinical, biological, and functional status of ankylosing spondylitis patients was recorded. Arterial stiffness was assessed by measuring pulse wave velocity (PWV) and pulse wave analysis (PWA) was performed using applanation tonometry. We found significant differences between ankylosing spondylitis patients and healthy controls in regard to PWV (p=0.047), aortic augmentation pressure-AP (p=0.028), augmentation index-AIx (p=0.038) and aortic augmentation index adjusted for heart rate-AIx75 (p=0.011). PWV and AIx75 were significantly associated with the disease functioning score-BASFI (p=0.012, r=0.504; p=0.041, r=0.421). Aortic AP and augmentation indexes (AIx and AIx75) were all associated to ASDAS score (p=0.028, r=0.448; p=0.005, r=0.549; p=0.025, r=0.455). Our study showed that ankylosing spondylitis patients have a higher arterial stiffness than the age-matched controls, leading to an increased cardiovascular risk. We found that arterial stiffness is positively associated with disease activity and functional impairment. Chronic spondiloarthropathies should be screened for arterial stiffness, even in the absence of traditional cardiovascular risk factors, in order to benefit from primary prevention measures.

References:

Secukinumab improves patient-reported outcomes in subjects with active psoriatic arthritis

Strand V, et al.

Objective: To evaluate the effect of secukinumab on patient-reported outcomes (PROs) in subjects with active psoriatic arthritis (PsA) in the FUTURE 1 study.

Methods: Subjects were randomised 1:1:1 to receive intravenous (i.v.) secukinumab 10 mg/kg at weeks 0, 2 and 4 followed by subcutaneous secukinumab 150 or 75 mg every 4 weeks or matching placebo until week 24.

Results: At week 24, subjects receiving secukinumab i.v.→150 mg or i.v.→75 mg reported greater least squares mean changes from baseline than those receiving placebo in patient global assessment of disease activity (-20.6 and -20.0 vs -7.4, respectively), patient assessment of pain (-20.8 and -20.4 vs -6.7), psoriatic arthritis quality of life (-3.5 and -3.2 vs -0.4), Dermatology Life Quality Index (-8.8 and -7.9 vs 0.7); p<0.0001 vs placebo for both secukinumab groups for above PROs and Functional Assessment of Chronic Illness Therapy-Fatigue (6.74 (p<0.05 vs placebo) and 6.03 vs 4.00); all of which well exceeded minimum clinically important differences.

Conclusions: In subjects with PsA, secukinumab treatment resulted in clinically meaningful improvements in global disease activity, pain, generic and disease-specific measures of health-related quality of life and fatigue.

FUTURE 1

هدف البحث: تقييم فعالية استخدام secukinumab وربطه مع التأثير على النتائج الموردة من قبل المريض في حالات التهاب المفاصل الصدفي الفعال.

تهدف الدراسة إلى تقييم فعالية استخدام secukinumab وربطه مع التأثير على النتائج الموردة من قبل المريض في حالات التهاب المفاصل الصدفي الفعال.

نتائج الدراسة: تبين الدراسة أن استخدام secukinumab في هذه الحالات يحسن النتائج الموردة من قبل المريض، وذلك عن طريق تحسين النتائج الموردة مثل تقييم المريض للألم، وتقييمه العام، وقيمة نوعية الحياة عند مرضى التهاب المفاصل الصدفي، وقيمة التشخيص الإحصائي للعلاج الإريثمي، وقيمة التشخيص الإحصائي للعلاج الإريثمي. وتعتبر هذه النتائج مهمة تدعم استخدام secukinumab في حالات التهاب المفاصل الصدفي الفعال.

الاستنتاجات: تحسن النتائج الموردة من قبل المريض عن طريق استخدام secukinumab يشير إلى فعالية استخدام هذا الدواء في علاج حالة التهاب المفاصل الصدفي الفعال.
Purpose: The aim of this study was to investigate the effects of flaxseed oil consumption on serum systemic and vascular inflammation markers, and oxidative stress in hemodialysis (HD) patients.

Methods: In this randomized, double-blind, clinical trial, 34 HD patients were randomly assigned to either the flaxseed oil or the control group. The patients in the flaxseed oil group received 6 g/day flaxseed oil for 8 weeks, whereas the control group received 6 g/day medium-chain triglycerides (MCT) oil. At baseline and the end of week 8, serum concentrations of high-sensitive C-reactive protein (hs-CRP), soluble intercellular adhesion molecule type 1 (sICAM-1), soluble vascular cell adhesion molecule type 1 (sVCAM-1), sE-selectin, and malondialdehyde (MDA) were measured after a 12- to 14-h fast.

Results: Serum hs-CRP, a systemic inflammation marker, and sVCAM-1, a vascular inflammation marker, reduced significantly in the flaxseed oil group at the end of week 8 compared to baseline \( (P<0.05) \), and the reductions were significant in comparison with the MCT oil group \( (P<0.05) \). There were no significant differences between the two groups in mean changes in serum sICAM-1, sE-selectin, and MDA.

Conclusions: This study indicates that daily consumption of 6 g flaxseed oil reduces serum hs-CRP and sVCAM-1, which are two risk factors for CVD. Therefore, the inclusion of flaxseed oil in the usual diet of HD patients can be considered as a strategy for reducing CVD risk factors.
Delayed consequences of acute kidney injury

Parr SK, et al.

Acute kidney injury (AKI) is an increasingly common complication of hospitalization and acute illness. Experimental data indicate that AKI may cause permanent kidney damage through tubulointerstitial fibrosis and progressive nephron loss, while also lowering the threshold for subsequent injury. Furthermore, preclinical data suggest that AKI may also cause distant organ dysfunction. The extension of these findings to human studies suggests long-term consequences of AKI including, but not limited to recurrent AKI, progressive kidney disease, elevated blood pressure, cardiovascular events, and mortality. As the number of AKI survivors increases, the need to better understand the mechanisms driving these processes becomes paramount. Optimizing care for AKI survivors will require understanding the short- and long-term risks associated with AKI, identifying patients at highest risk for poor outcomes, and testing interventions that target modifiable risk factors. In this review, we examine the literature describing the association between AKI and long-term outcomes and highlight opportunities for further research and potential intervention.

Otorhinolaryngology

Evaluation of a laryngopharyngeal reflux management protocol

Gupta N, et al.
Purpose: To evaluate the effectiveness of a protocol for management of patients with laryngopharyngeal reflux (LPR) in a multi-provider clinic.

Materials and methods: This is a retrospective cohort study of 188 patients treated for LPR. A standardized clinical protocol for diagnosis and management was instituted in 2012. Two cohorts were established: those managed according to the protocol, and those who were not. For patients managed with the LPR protocol, diagnosis was made using clinical judgment, guided by the Reflux Symptom Index (RSI) and Reflux Finding Score (RFS). Patients were treated with proton pump inhibitors (PPI) with the goal of weaning therapy after symptom resolution. Response to therapy was rated using a global rating scale with three response levels: no response, partial response, and complete response. The primary outcome measure was complete response to therapy and the secondary outcome measures were any response (complete or partial) and successful wean off PPI therapy.

Results: The patients treated with the LPR protocol had higher rates of complete response \( (p<0.001) \). There was no statistically significant difference in rates of any response (complete or partial) between the two groups \( (p=0.08) \). Patients treated using the LPR protocol were more likely to be successfully weaned off PPI therapy \( (p=0.006) \).

Conclusions: The use of an LPR protocol improved treatment effectiveness in our clinic, highlighting the role of clinical protocols in reducing variability in care, thereby improving patient outcomes.

Peripheral blood eosinophilia correlates with hyperplastic nasal polyp growth

ارتباط زيادة الحمضات في الدم المحيطي مع نمو سيلات مرعورة بسبب مرض القلس البلعومي الحنجري

Background: Eosinophils are thought to play a significant role in nasal polyposis, but the exact mechanism by which they contribute to polyposis remains unclear. Therefore, we proposed to test the hypothesis that peripheral blood eosinophilia (PBE) is a surrogate and biomarker for polyp load. To do this, we examined whether PBE levels correlate with nasal polyp load in a longitudinal manner.

Methods: We retrospectively analyzed the fluctuation of PBE and nasal polyp load in each patient \( (n=61) \) assessed preoperatively, 1-2 months postoperatively, and 3-12 months postoperatively. Nasal polyp load was assessed using computed tomography (CT) scan preoperatively and nasal endoscopy postoperatively. Correlation coefficients were
analyzed using parametric statistics.

**Results:** There was a positive correlation between initial preoperative baseline PBE and CT scan staging of polyp load ($r=0.35$, $p<0.01$). When patients were analyzed longitudinally, we found that the change in PBE correlated with the change in nasal endoscopy scores obtained at or near the same timepoint ($r=0.82$, $p<2.0\times10^{-10}$). When nasal polyp load increased with time, we observed a stepwise increase in eosinophil counts ($r=0.37$, $p<0.02$).

**Conclusions:** PBE correlates with nasal polyp load. PBE levels may be used along with nasal endoscopy to prospectively follow nasal polyp load postoperatively in chronic rhinosinusitis patients with hyperplastic nasal polyposis who have eosinophilia, asthma, and/or aspirin-exacerbated respiratory disease.

**Dermatology**

الأمراض الجلدية

*Systematic review and meta-analysis of randomized clinical trials (RCTs) comparing topical calcineurin inhibitors with topical corticosteroids for atopic dermatitis*

مراجعة منهجية وتحليل نهائي للدراسات السريرية الميدانية الموضعية calcineurin والستيروئيدات القشرية في معالجة حالات التهاب الجلد التأنيبي


**Background:** Calcineurin inhibitors are alternatives to corticosteroid for treatment of atopic dermatitis.

**Objectives:** We sought to compare the beneficial effects and adverse events associated with these therapies in treating patients with atopic dermatitis.

**Methods:** Four databases were searched for randomized clinical trials comparing topical calcineurin inhibitors versus corticosteroids in children and adults. Methodological quality was evaluated to assess bias risk. Clinical outcome and costs were compared.

**Results:** Twelve independent randomized clinical trials comparing calcineurin inhibitors ($n=3492$) versus corticosteroids ($n=3462$) were identified. Calcineurin inhibitors and corticosteroids had similar rates of improvement
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Conclusions: Calcineurin inhibitors and corticosteroids have similar efficacy. Calcineurin inhibitors are associated with higher costs and have more adverse events, such as skin burning and pruritus. These results provide level-1a support for the use of corticosteroids as the therapy of choice for atopic dermatitis.

Iorizzo M, et al.
Skin Appendage Disord 2016 Feb;1(3):134-40.
Relationships between high-density lipoprotein cholesterol and depressive symptoms

Shin HY, et al.

Although serum cholesterol has been associated with late-life depression, few studies on the associations between lipids and depression among middle-aged adults have been performed. This study examined associations between serum lipid levels and depressive symptoms in Korean middle-aged adults. We used data from 8207 participants aged 40-64 years who completed a questionnaire about their experience of depressive symptoms over the last year as part of the 2010-2012 Korean National Health and Nutrition Examination Survey. Higher HDL-C levels were significantly associated with an elevated risk of depressive symptoms (OR=1.32; 95% CI=1.09-1.60) after adjusting for other covariates.

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Greater hippocampal volume is associated with PTSD treatment response

Rubin M, et al.

Previous research associates smaller hippocampal volume with posttraumatic stress disorder (PTSD). It is unclear, however, whether treatment affects hippocampal volume or vice versa. Seventy-six subjects, 40 PTSD patients and 36 matched trauma-exposed healthy resilient controls, underwent clinical assessments and magnetic resonance imaging (MRI) at baseline, and 10 weeks later, during which PTSD patients completed ten weeks of Prolonged Exposure (PE) treatment. The resilient controls and treatment responders (n=23) had greater baseline hippocampal volume than treatment non-responders (n=17) (p=0.012 and p=0.050, respectively), perhaps due to more robust fear-extinction capacity in both the initial phase after exposure to trauma and during treatment.

Therapeutic use of botulinum toxin to correct misalignment of the eyes

Wipf M, et al.

**Background/purpose:** There are no concrete guidelines for the therapeutic use of botulinum toxin in strabismus. The 2012 Cochrane Analysis concluded that it was controversial, but included only 4 prospective randomized controlled trials. However, many retrospective studies suggest that botulinum toxin treatment is a viable alternative to surgical treatment. We have now retrospectively evaluated the outcomes of our patients treated with botulinum toxin.

**Patients and methods:** We retrospectively reviewed the charts of the patients treated with Botox® for strabismus. The period covered was between 2003 and 2015, with a follow-up of at least 6 months. Successful outcome was defined as alignment within ≤ 10 prism dioptres, with stereopsis at the final follow-up.

**Results:** 16 patients were included, including 11 children. The mean follow-up was 19 months. All 11 children were initially esotropic; 9 exhibited lasting angle reduction (mean 25.5 prism dioptres) at the final follow-up, and 6 of these (54.5%) achieved a successful outcome. Only one adult patient achieved a lasting angle reduction. Other benefits were: Psychological relief due to reduced nystagmus (n=1), relief of headaches from decompensating exophoria.
Incidence and surgical management of simultaneous bilateral retinal detachment
الحدث والتدبير الجراحي لحالات انفصال الشبكية المتزامن ثنائي الجانب

Finger ML, et al.

**Background:** Simultaneous bilateral retinal detachment (RD) is very rare and its incidence has not been very well characterised.

**Material and methods:** Retrospective review of RD cases treated at the Jules Gonin Eye Hospital between 1999 and 2010.

**Results:** Over the 11 year period, 10 patients (20 eyes) with simultaneous bilateral RD were identified (average incidence among RD= 0.9%). Mean age: 46.4 ± 17.6 years, with a M:F Ratio of 6:4. Pseudophakia was present in 10 eyes and myopia ≥-5.0 dioptres in 11 eyes. Visual symptoms were unilateral in 7 patients, bilateral in 2 patients and absent in one patient. RD was macula-on in 15 eyes and macula-off in 5 eyes. Atrophic holes were present in 11 eyes, U-tears in 6 eyes and a combination in 3 eyes. Primary surgery consisted of buckle surgery (11 eyes), vitrectomy (6 eyes) and combines technique (3 eyes). The final anatomical success rate was 100%. Mean follow-up time was 22.7 ± 4.95 months.

**Conclusion:** The incidence of bilateral simultaneous RD appears to be very low and surgical success rates are excellent. Bilateral pre-operative dilated fundoscopy is mandatory, as the majority of patients have unilateral symptoms.
تعتبر حالة انفصال الشبكية المتزامن ثنائي الجانب حالة نادرة جداً، كما أن معدلات حدوثها غير محددة بدقة. 

خلفية البحث:

للعيون خلال الفترة Jules Gonin. تم إجراء استعراض راجع لحالات انفصال الشبكية المتزامن ثنائي الجانب المعالجة في مشفى بين عامي 1999 و 2010. 

النتائج: تم خلال فترة 11 سنة معالجة 10 مرضى (20 عيناً) من حالة انفصال شبكية متزامن ثنائي الجانب (معدل الحدوث الوسطي 0.9%). بلغ متوسط أعمار المرضى 46.4±17.6 سنة بنسبة ذكور للإناث بلغت 6 إلى 4. لوحظ وجود عدسة كاذبة Pseudophakia في 10 أعين وحسر myopia في 11 عيناً. لوحظ وجود أعراض بصرية وحيدة الجانب في 7 حالات، أعراض بصرية ثنائية الجانب في حالتين، مع عدم وجود أعراض في حالة واحدة. شملت حالات الانفصال وجود انفصال في منطقة اللطخة في 5 حالات و عدم وجود انفصال في هذه المنطقة في 15 حالة. لوحظ وجود عدسة كاذبة في 11 عينا، قطع buckle في 11 عيناً، قطع تقني في 11 عينا، تمزقات U في 6 أعين وكلاهما معاً في 3 أعين. شملت الجراحة البدنية الجزء البارudoscopy في 6 أعين، لوحظ وجود عدسة كاذبة في 3 أعين. بلغت نسبة النجاح التشريحي للعلاج المحقق 100%، بلغت مدة المتابعة الوسطية 4.9±22.7 شهرًا. 

الاستنتاجات: إن حدوث حالة انفصال الشبكية المتزامن ثنائي الجانب يعتبر منخفض جداً، كما أن معدلات النجاح الجراحي في تدبير هذه الحالة تصل حتى 100%. يعتبر إجراء تنظير باطن العين مع توسيع الحدقة ثنائية الجانب قبل الجراحة إجراء ضرورياً حيث أن غالبية المرضى لديهم أعراض أحادية الجانب.