

MED-LIBRARY

N^a 3, mayo 2021

CHL1189767-2 (v2.0)



Contacte a Bibliotecóloga para obtener el artículo completo: waleska.alemparte@abbott.com

Í N D I C E

CARDIOLOGÍA

PSIQUIATRÍA

**TRAUMATOLOGÍA, ORTOPEDIA
Y MEDICINA DEL DEPORTE**

DERMATOLOGÍA

**PEDIATRÍA Y
NEONATOLOGÍA**

OTORRINOLARINGOLOGÍA

**ENFERMEDADES
RESPIRATORIAS**

**GINECOLOGÍA
OBSTETRICIA**

UROLOGÍA

GASTROENTEROLOGÍA

**ENDOCRINOLOGÍA Y
METABOLISMO**

NEUROLOGÍA

NUTRICIÓN

Antihypertensive medication adherence and cardiovascular disease risk: A longitudinal cohort study

Jiqing Li¹ , Zhentang Zhang² , Shucheng Si¹ , Bojie Wang¹ , Fuzhong Xue^{3,4}

Abstract Background and aims: Few studies estimated the impact of antihypertensive adherence on cardiovascular diseases (CVD) in a longitudinal cohort with presence of time-dependent confounders. This study aims to assess the association between antihypertensive adherence and CVD using marginal structural Cox model (MSM-Cox) and to characterize blood pressure (BP) trajectories of patients with different adherence. **Methods:** This longitudinal study included 16,896 hypertensive patients receiving antihypertensive medication. The median follow-up time was 3.5 years (25th to 75th, 1.75-4.75 years). BP and medication adherence were measured four times every year. We used MSM-Cox and Cox model to assess association between antihypertensive adherence and CVD events. The linear mixed-effects model was used to characterize BP trajectories of patients with different adherence, and the area under curves (AUC) was calculated as BP burden. **Results:** We documented 4735 CVD events, crude incidence of CVD was 80.8 (95% CI, 78.1-83.4) and 112.6 (95% CI, 107.2-118.0) per 1000 person-years for baseline high-adherence and low-adherence, respectively. Compared with high adherence, the adjusted hazard ratio (HR) for association between low adherence with CVD was 1.75 (95%CI, 1.62-1.89) and 1.34 (95%CI, 1.26-1.42) based on the MSM-Cox and the Cox model, respectively. The BP burden and fluctuation range of BP trajectory in low-adherence patients were larger than those of high-adherence patients. Patients with high adherence got 28% greater reduction of BP burden than low-adherence patients. **Conclusions:** Antihypertensive adherence was more strongly associated with the risk of CVD than conventional regression analyses based on a single adherence measurement.

Connective Tissue and Fibroblast Senescence in Skin Aging

Meinhard Wlaschek¹ , Pallab Maity¹ , Evgenia Makrantonaki² , Karin Scharffetter-Kochanek³

Abstract There is increasing evidence that skin aging is significantly enforced by the accumulation of senescent dermal fibroblasts. Various stressors damaging macromolecules inside and outside fibroblasts are responsible. In addition, NK cells fail to adequately remove senescent (SEN) fibroblasts from tissues. SEN fibroblasts by the release of the proinflammatory, tissue degrading senescent-associated secretory phenotype factors and vesicles with distinct cargo impact on their endogenous niche and spread senescence and skin aging. In this review, we will further discuss less noticed facets, including the plasticity of distinct dermal fibroblast phenotypes, the underestimated impact of the extracellular matrix itself, and the depletion of fibroblast subsets on skin homeostasis and aging.

ENFERMEADES RESPIRATORIAS

World Journal of Otorhinolaryngology - Head and Neck Surgery Available online 12 March 2021

Association of allergic rhinitis with hypothyroidism, asthma, and chronic sinusitis: Clinical and radiological features

Aljuaid Eidha Fawzana Sara Ahmad Assirib Raad M. M. Althaqafib Atheer Alsufyani

Abstract Background Allergic rhinitis (AR) is characterized by mucosal inflammation that leads to a variety of symptoms, such as nasal congestion, rhinorrhea, and sneezing. This rhinitis is triggered by inhalation of allergens, such as pollen, and this condition has a negative impact on the quality of life. AR was shown to be associated with a number of co-morbidities, including hypothyroidism, asthma, and chronic sinusitis. **Objective** This study aimed to assess AR-associated comorbidities in patient's presenting symptoms and paranasal sinus computed tomography (CT) scan findings in Taif City, Saudi Arabia. **Methods** This cross-sectional study evaluated medical and radiological records of AR patients retrospectively from the period of December 2018 to September 2019 in Al-Hada Armed Forces Military Hospital, Taif City, Saudi Arabia. **Results** A total of 103 AR patients with a mean age of 39.0 ± 15.6 years with 55.3% males and 44.7% females. The three most common associated comorbidities in allergic rhinitis patients were chronic sinusitis (28.2%), hypothyroidism (21.4%), and asthma (8.7%). Nasal obstruction (30.1%) was the symptom most frequently presented by all patients. Mucosal thickening occurred most frequently in patients with associated chronic sinusitis, while bilateral osteomeatal complex obliteration was observed mostly in asthmatic patients, and bony boundary thinning was more prevalent among patients with associated hypothyroidism. **Conclusion** The gender distribution of AR was 10% more common among males; however, the most common three comorbidities in allergic rhinitis patients were chronic sinusitis, hypothyroidism, and asthma, and most of those patients were females. Hypothyroidism can be a hidden predisposing factor for AR, while chronic sinusitis can be caused by AR due to secretion stasis or immune system activation.

GASTROENTEROLOGIA

Gastroenterology . 2020 Dec 31;S0016-5085(20)35622-5. doi:10.1053/j.gastro.2020.12.058.

Altered Gut Microbial Metabolism of Essential Nutrients in Primary Sclerosing Cholangitis

Martin Kummen¹, Louise B Thingholm², Malte C Rühlemann², Kristian Holm³, Simen H Hansen³, Lucas Moitinho-Silva⁴, Timur Liwinski⁵, Roman Zenouzi⁶, Christopher Storm-Larsen³

Abstract Background & aims: To influence host and disease phenotype, compositional microbiome changes, which have been demonstrated in patients with primary sclerosing cholangitis (PSC), must be accompanied by functional changes. We therefore aimed to characterize the genetic potential of the gut microbiome in patients with PSC compared with healthy controls (HCs) and patients with inflammatory bowel disease (IBD). **Methods:** Fecal DNA from 2 cohorts (1 Norwegian and 1 German), in total comprising 136 patients with PSC (58% with IBD), 158 HCs, and 93 patients with IBD without PSC, were

subjected to metagenomic shotgun sequencing, generating 17 billion paired-end sequences, which were processed using HUMAnN2 and MetaPhlAn2, and analyzed using generalized linear models and random effects meta-analyses. **Results:** Patients with PSC had fewer microbial genes compared with HCs ($P < .0001$). Compared with HCs, patients with PSC showed enrichment and increased prevalence of Clostridium species and a depletion of, for example, Eubacterium spp and Ruminococcus obeum. Patients with PSC showed marked differences in the abundance of genes related to vitamin B6 synthesis and branched-chain amino acid synthesis ($Q_{fdr} < .05$). Targeted metabolomics of plasma from an independent set of patients with PSC and controls found reduced concentrations of vitamin B6 and branched-chain amino acids in PSC ($P < .0001$), which strongly associated with reduced liver transplantation-free survival (\log -rank $P < .001$). No taxonomic or functional differences were detected between patients with PSC with and without IBD. **Conclusions:** The gut microbiome in patients with PSC exhibits large functional differences compared with that in HCs, including microbial metabolism of essential nutrients. Alterations in related circulating metabolites associated with disease course, suggesting that microbial functions may be relevant for the disease process in PSC.

NEUROLOGIA

Lancet Neurol . 2021 Apr;20(4):304-315. doi: 10.1016/S1474-4422(20)30482-8. Epub 2021

Menstrual migraine: a distinct disorder needing greater recognition

Kjersti Grøtta Vetvik¹ , E Anne MacGregor²

Abstract The term menstrual migraine refers to migraine that is associated with menstruation by more than chance, but it does not define pathophysiology. Menstrual migraine affects about 20-25% of female migraineurs in the general population, and 22-70% of patients presenting to headache clinics. In women diagnosed with menstrual migraine, perimenstrual migraine attacks are associated with substantially greater disability than their non-menstrual attacks. Loose interpretation of diagnostic criteria has led to conflicting results in studies on prevalence figures, clinical characteristics, and response to treatment. Importantly, clinical trials often do not distinguish between perimenstrual attacks in women diagnosed with menstrual migraine and attacks associated with menstruation by chance. Two pathophysiological mechanisms have been identified: oestrogen withdrawal and prostaglandin release. Although management strategies targeting these mechanisms might be effective, the evidence is not robust. Given how common and debilitating this distinct condition is, more research investment is needed to expand understanding of its pathophysiology and to develop more effective treatment strategies.

PSIQUIATRIA

The European Journal of Psychiatry 2021 April–June;35(2):92-98

The impact of external stress factors on hippocampus volume during antidepressant treatment

I. Hrtaneka, M. Bittsanskyb, I. Tonhajzerovac, M. Grendarb, M. Oppaa, D. Cesnekovaa, I. Farskya,d, P. Hutkaa, D. Dobrotae, K. Zelenakf, I. Ondrejkaa

Background and objectives Magnetic resonance imaging (MRI) studies suggest that depression is associated with volumetric hippocampal changes. Investigations of these structures during antidepressant therapy is therefore important, however, volumetric studies are rare in this case. We aimed to study the effect of AD treatment on volumetric changes in hippocampus depending on stress factors in depressive patients. **Methods** Thirty patients with major depressive disorder (MDD) underwent MRI of the brain on the day of admission and at the time of stabilization of acute depressive symptomatology by venlafaxine. The presence of long-lasting stress factors in these patients was investigated by the social readjustment rating scale questionnaire. **Results** No significant differences were found in hippocampi volumes before and after venlafaxine treatment. However, regression analysis revealed significant positive relation between stress factors and volumetric hippocampus change during AD treatment. **Conclusion** It seems that antidepressant treatment by venlafaxine could be more suitable in the MDD patients with presence of stress-factors.

PEDIATRIA Y NEONATOLOGIA

SN Compr Clin Med . 2021 Jan 7;1-12. doi: 10.1007/s42399-020-00650-0. Online ahead of print.

Childhood Multisystem Inflammatory Syndrome: An Emerging Disease with Prominent Cardiovascular Involvement-A Scoping Review

Amit Malviya¹, Animesh Mishra¹

Abstract Multisystem inflammatory syndrome in children (MIS-C) or paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) is an emerging disease in children affected with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection and thought to be an immune-mediated post-infectious complication of SARS-CoV-2. The disease presentation is similar to Kawasaki disease but has certain distinguishing features. The exact pathogenesis is still not clear but an aberrant immune response, antibody-mediated vascular damage and virus-mediated abnormal type I and III interferon-gamma response are thought to be responsible. Most children who are previously healthy present after 2-4 weeks of SARS-CoV-2 infections with febrile illness of short duration with prominent gastrointestinal, cardiac and hematologic manifestations, progressing to vasoplegic shock, requiring vasopressor therapy. Cardiovascular involvement is prominently marked by acute myocardial injury/myocarditis and the development of coronary artery aneurysms. Laboratory markers of inflammation are elevated uniformly. Most children require intensive care, and few need invasive ventilation. The treatment mainly consists of anti-inflammatory and immunomodulatory therapy like intravenous immunoglobulins and steroids. The overall prognosis is good and reported mortality rates are 0-4%.

GINECOLOGÍA OBSTETRICIA

Eur J Obstet Gynecol Reprod Biol . 2021 Mar;258:235-239. doi: 10.1016/j.ejogrb.2021.01.005. Epub 2021

Seasonal influenza during pregnancy

Hala Abdullahi¹, Amir Elnahas², Justin C Konje³

Abstract Seasonal Influenza is an acute respiratory illness caused by Influenza A or B viruses. Its presentation is commonly with signs and symptoms of upper respiratory tract involvement such as cough, sore throat and runny nose, associated with generalized systemic symptoms such as fever, headaches, myalgia, and weakness. The severity of symptoms is very variable, ranging from mild self-limiting infection to severe acute respiratory illness requiring intensive interventions. It usually occurs during the winter season and can lead to outbreaks and epidemics worldwide. Influenza is associated with increased morbidity and mortality in high-risk populations including pregnant women and up to two weeks postpartum. Rapid and accurate diagnosis of Influenza is necessary for prompt treatment to reduce morbidity. General public health measures and vaccination are recommended to reduce morbidity and control the spread of the disease. There are many published articles on the several Influenza epidemics that have occurred in this century. In this article, we aim to review the epidemiology, clinical manifestations, diagnosis, treatment, and prevention of seasonal Influenza during pregnancy. We performed an electronic search on PubMed, Cochrane database, National guidelines clearing house and Google Scholar databases.

ENDOCRINOLOGIA Y METABOLISMO

JACC Heart Fail . 2021 Mar;9(3):215-223. doi: 10.1016/j.jchf.2020.10.013. Epub 2021 Jan 6.

Biomarker-Based Risk Prediction of Incident Heart Failure in Pre-Diabetes and Diabetes

Ambarish Pandey¹ , Muthiah Vaduganathan² , Kershaw V Patel³ , Colby Ayers¹ , Christie M Ballantyne⁴ , Mikhail N Kosiborod⁵ , Mercedes Carnethon⁶ , Christopher DeFilippi⁷ , Darren K McGuire¹

Abstract Objectives: This study evaluated the application of a biomarker-based risk score to identify individuals with dysglycemia who are at high risk for incident heart failure (HF) and to inform allocation of effective preventive interventions. **Background:** Risk stratification tools to identify patients with diabetes and pre-diabetes at highest risk for HF are needed to inform cost-effective allocation of preventive therapies. Whether a biomarker score can meaningfully stratify HF risk is unknown. **Methods:** Participants free of cardiovascular disease from 3 cohort studies (ARIC [Atherosclerosis Risk In Communities], DHS [Dallas Heart Study], and MESA [Multi-Ethnic Study of Atherosclerosis]) were included. An integer-based biomarker score included high-sensitivity cardiac troponin T ≥ 6 ng/l, N-terminal pro-B-type natriuretic peptide ≥ 125 pg/ml, high-sensitivity C-reactive protein ≥ 3 mg/l, and left ventricular hypertrophy by electrocardiography, with 1 point for each abnormal parameter. The 5-year risk of HF was estimated among participants with diabetes and pre-diabetes across biomarker score groups (0 to 4). **Results:** The primary analysis included 6,799 participants with dysglycemia (diabetes: 33.2%; pre-diabetes: 66.8%). The biomarker score demonstrated good discrimination and calibration for predicting 5- and 10-year HF risk among pre-diabetes and diabetes cohorts. The 5-year risk of HF among subjects with a biomarker score of ≤ 1 was low and comparable to participants with euglycemia (0.78%). The 5-year risk for HF increased in a graded fashion with an increasing biomarker score, with the highest risk noted among those with scores of ≥ 3 (diabetes: 12.0%; pre-diabetes: 7.8%). The estimated number of HF events that could be prevented using a sodium-glucose cotransporter-2 inhibitor per 1,000 treated subjects over 5 years was 11 for all subjects with diabetes and ranged from 4 in the biomarker score zero group to 44 in the biomarker score ≥ 3 group. **Conclusions:** Among adults with diabetes and pre-diabetes, a biomarker score can stratify HF risk and inform allocation of HF prevention therapies.

NUTRICION

Nutrients . 2021 Apr 8;13(4):1227. doi: 10.3390/nu13041227.

Rational Use of Protein Supplements in the Elderly-Relevance of Gastrointestinal Mechanisms

Ian Chapman¹ , Avneet Oberoi¹ , Caroline Giezenaar² , Stijn Soenen³

Abstract Protein supplements are increasingly used by older people to maintain nutrition and prevent or treat loss of muscle function. Daily protein requirements in older people are in the range of 1.2 gm/kg/day or higher. Many older adults do not consume this much protein and are likely to benefit from higher consumption. Protein supplements are probably best taken twice daily, if possible soon after exercise, in doses that achieve protein intakes of 30 gm or more per episode. It is probably not important to give these supplements between meals, as we have shown no suppressive effects of 30 gm whey drinks, and little if any suppression of 70 gm given to older subjects at varying time intervals from meals. Many gastrointestinal mechanisms controlling food intake change with age, but their contributions to changes in responses to protein are not yet well understood. There may be benefits in giving the supplement with rather than between meals, to achieve protein intakes above the effective anabolic threshold with lower supplement doses, and have favourable effects on food-induced blood glucose increases in older people with, or at risk of developing, type 2 diabetes mellitus; combined protein and glucose drinks lower blood glucose compared with glucose alone in older people.

TRAUMATOLOGIA, ORTOPEDIA Y MEDICINA DEL DEPORTE

Joint Bone Spine . 2021 Mar;88(2):105077. doi: 10.1016/j.jbspin.2020.09.009. Epub 2020 Sep 17.

Impact of smoking on femorotibial and hip osteoarthritis progression: 3-year follow-up data from the KHOALA cohort

Christian Hubert Roux¹ , Joël Coste² , Coralie Roger³ , Eric Fontas³ , Anne-Christine Rat⁴ , Francis Guillemin⁴

Abstract Objectives: To evaluate the clinical and structural impact of smoking on knee and hip osteoarthritis at baseline and after 3years. **Methods:** Observational data on the progressive effects of smoking at baseline and after 3years were collected from The Knee and Hip Osteoarthritis Long-Term Assessment cohort comprising a French population of patients aged 40-75years with symptomatic lower limb osteoarthritis. Clinical (the Western Ontario and McMaster Universities Arthritis Index and Harris scores) and structural (radiography for osteophyte detection and joint-space narrowing assessment) were conducted. The tobacco usage categories were 'never smoker', 'former smoker', and 'current smoker'. **Results:** Of the 873 subjects included, 215 (25%) were former smokers and 119 (14%) were current smokers. Multivariate analyses revealed that former and current smokers had fewer knee osteophytes in the medial compartment at baseline (odds ratio [OR]=0.64 [0.41-0.99] and 0.63 [0.36-1.11], respectively), lower osteophyte development in the lateral condyle after 3years (OR=0.11 [0.03-0.45] and 0.15 [0.03-0.97]), and lower osteophyte development in the lateral tibial plateau after 3years (OR=0.22 [0.06-0.75] and 0.68 [0.14-3.35]). Higher tobacco consumption and longer duration of consumption were

significantly associated with fewer knee osteophytes at baseline and lower osteophyte development at 3years. Conclusion: Although cigarette smoking did not influence knee function, pain, or the need for replacement surgery, current and former smokers developed fewer osteophytes. This relationship may be linked to the quantity and duration of consumption. Our results provide further insight into the smoking-related pathophysiology of osteoarthritis.

OTORRINOLARINGOLOGIA

The Open Infectious Diseases Journal 2021, DOI:10.2174/1874279302113010001

Clarithromycin versus Amoxicillin alone or with Clavulanate in Acute Maxillary Sinusitis: A Meta-analysis of Clinical Trials

Daryl J. Hoban¹, Jos Nauta², *

Abstract Objective: A meta-analysis was performed to explore the relative effects of clarithromycin and amoxicillin (with or without clavulanate potassium) in the treatment of acute maxillary sinusitis.

Methods: Six studies were identified in the peer-reviewed literature. All were randomized single-blind (investigator-blind) or open-label trials in outpatients diagnosed with acute maxillary sinusitis. A total of 1580 patients were enrolled, of whom 1194 were clinically evaluable. The total daily dose of clarithromycin was 1000 mg; the total daily dose of amoxicillin (with or without clavulanate potassium) was either 1500 or 2000 mg. The duration of study drug treatment varied from 8 to 14 days. Endpoints comprised clinical and radiological success within 48 h of the end of study drug treatment plus bacteriologic cure and eradication. Success and cure rate differences were analyzed using fixed- and random-effect models. The absence of between-study heterogeneity was tested using Cochran's Q-test.

Results: Clinical success rates varied between 85.8% and 97.9% for clarithromycin and between 84.2% and 96.8% for amoxicillin. The combined rate difference in clinical success rates between clarithromycin and amoxicillin was +1.9% (P=0.14). Radiological success rates (four studies) varied from 78.2% to 94.0% for clarithromycin and 79.7% to 95.0% for amoxicillin, with a combined rate difference of zero (P=1.00). Bacteriologic cure rates (four studies) were 87.1–94.6% for clarithromycin, compared with 89.8–98.1% for amoxicillin, with a combined difference in cure rates of –3.2% (P=0.16). Overall bacterial eradication rates were comparable between the two treatments (clarithromycin, 89.3%; amoxicillin, 92.1%) **Conclusion:** These data, with their limitations properly acknowledged, identify clarithromycin as a valid and viable alternative to amoxicillin for the treatment of acute maxillary sinusitis in adults.

UROLOGIA

Urology . 2021 Apr;150:139-145. doi:10.1016/j.urology.2020.06.056. Epub 2020 Jul 13.

Female Lower Urinary Tract Symptom Prevention and Treatment Strategies on Social Media: Mixed Correlation With Evidence

Claire S Burton¹, Gabriela Gonzalez², Kristina Vaculik³, Carine Khalil³, Yuliya Zektser², Corey Arnold⁴, Christopher V Almario³, Brennan M R Spiegel³, Jennifer T Anger⁵

Abstract Objective: To evaluate the level of evidence behind recommendations on social media for disease prevention in five lower urinary tract symptoms. **Materials and methods:** We conducted a digital analysis of anonymous online posts on social media sites collected by a social media data mining service. One thousand posts about pelvic organ prolapse, stress urinary incontinence, overactive bladder, urinary tract infection, and interstitial cystitis/bladder pain syndrome were randomly selected. We analyzed these posts for recommendations regarding the prevention and treatment of these diseases, which were then compared to recommendations in available clinical guidelines and assessed for level of evidence.

Results: A total of 158 of 1000 posts contained 239 prevention strategies. For pelvic organ prolapse, there were 41 strategies identified, 25 (61%) of which had no evidence. For urinary tract infection 14 of 58 (29%) had no evidence, including recommendations for dietary modifications and urinary alkalization. For overactive bladder 8 of 28 (29%) had level 4 or no evidence. For stress urinary incontinence, 12 of 34 (36%) of prevention strategies had no evidence, such as laser rejuvenation and bladder training. Interstitial cystitis had the highest number of prevention strategies, and most were low or nonevidence based (70/79, 89%). **Conclusion:** Prevention and treatment strategies are common in online discussions of pelvic floor disorders, but at least one third of these recommendations have no evidential support. There is a role for further online education and social media engagement by health care specialists to promote evidence-based practices



Contacte a Bibliotecóloga para obtener el artículo completo: waleska.alemparte@abbott.com

