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# ÍNDICE

**ENFERMEDADES** CARDIOLOGÍA **DERMATOLOGÍA RESPIRATORIAS PSIQUIATRÍA GASTROENTEROLOGÍA NEUROLOGÍA PEDIATRÍA Y** GINECOLOGÍA **ENDOCRINOLOGÍA Y NEONATOLOGÍA OBSTETRICIA METABOLISMO** TRAUMATOLOGÍA, ORTOPEDIA Y MEDICINA DEL DEPORTE **NUTRICIÓN OTORRINOLARINGOLOGÍA UROLOGÍA** 

#### CARDIOLOGÍA

Herz 2020 Nov;45(7):619-625. doi: 10.1007/s00059-020-04951-x.

# Oncocardiology: new challenges, new opportunities

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Abstract Patients with cancer are at a higher risk of cardiovascular disease, which contributes to significant morbidity and mortality. The rapid progress in the field of oncological treatments has led to a steady increase in long-term cancer survivors. Care for cardiovascular complications is therefore becoming increasingly important. In addition, the establishment of new oncological therapies has resulted in the identification of previously unknown cardiovascular side effects. Oncocardiology aims to detect and treat cardiovascular diseases associated with cancer and cancer therapy. Continuous scientific, clinical, and structural developments are necessary as the basis for the best care of the growing number of affected patients. This review summarizes current developments in the field of oncocardiology with regard to advances in cancer therapy and challenges in clinical oncocardiology work. Cardiovascular side effects by targeted cancer therapies are characterized and recent advances in the field of cardiovascular diagnostics are outlined. Developments to better integrate oncocardiology into the medical care system and perspectives for modern, patient-oriented care are shown. In light of the coronavirus disease 2019 (COVID-19) pandemic, current challenges and opportunities are highlighted. The relevance of profitable further advances in oncocardiology including standardized guidelines and educational programs is delineated as a mandatory requirement for the successful development of oncocardiology.

# **DERMATOLOGÍA**

J Am Acad Dermatol . 2020 Nov;83(5):1349-1359. doi: 10.1016/j.jaad.2020.05.041. Epub 2020 May 16.

#### Association of atopic dermatitis severity with cognitive function in adults

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Abstract Background: Atopic dermatitis (AD) is associated with itch, pain, and sleep disturbance, all of which may contribute toward cognitive dysfunction. Objective: To determine the relationship of AD severity and cognitive function in adults. Methods: We performed a prospective dermatology practice-based study using questionnaires and evaluation by a dermatologist (n = 386). Cognitive function was assessed using the Patient-Reported Outcomes Measurement Information System (PROMIS) Cognitive Function 8-item Short-Form. Results: At baseline, 118 patients (58.1%) reported ≥1 symptoms of cognitive dysfunction in the past 4 weeks, with 29 (14.3%) having mild, 11 (5.4%) moderate, and 4 (2.0%) severe PROMIS Cognitive Function T-scores. In propensity score-weighted regression models, PROMIS Cognitive Function T-scores were inversely associated with patient-reported global AD severity, Patient Oriented Eczema Measure (POEM), Numeric Rating Scale worst itch and skin pain, SCORing Atopic Dermatitis (SCORAD)-sleep, POEM-sleep, Eczema Area and Severity Index, and SCORAD, with stepwise decreases of cognitive function with worsening AD severity.

At all AD severity levels, cognitive dysfunction was associated with increased Dermatology Life Quality Index and ItchyQoL scores. Changes from baseline in PROMIS Cognitive Function T-scores were weakly to moderately inversely correlated with changes from baseline in multiple AD outcomes. Limitations: Single-center study without non-AD controls. Conclusion: Cognitive dysfunction is associated with AD severity. Cognitive function may be an important end point for monitoring treatment response in AD.

#### **ENFERMEDADES RESPIRATORIAS**

Chest . 2020 Nov;158(5):1896-1911. doi: 10.1016/j.chest.2020.05.598. Epub 2020 Jun 16.

# Treatment of Community-Acquired Pneumonia in Immunocompromised Adults: A Consensus Statement Regarding Initial Strategies

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Abstract Background: Community-acquired pneumonia (CAP) guidelines have improved the treatment and outcomes of patients with CAP, primarily by standardization of initial empirical therapy. But current society-published guidelines exclude immunocompromised patients. Research question: There is no consensus regarding the initial treatment of immunocompromised patients with suspected CAP. Study design and methods: This consensus document was created by a multidisciplinary panel of 45 physicians with experience in the treatment of CAP in immunocompromised patients. The Delphi survey methodology was used to reach consensus. Results: The panel focused on 21 questions addressing initial management strategies. The panel achieved consensus in defining the population, site of care, likely pathogens, microbiologic workup, general principles of empirical therapy, and empirical therapy for specific pathogens. Interpretation: This document offers general suggestions for the initial treatment of the immunocompromised patient who arrives at the hospital with pneumonia.

#### **GASTROENTEROLOGÍA**

Pharmacol Ther . 2020 Nov;215:107626. doi: 10.1016/j.pharmthera.2020.107626. Epub 2020 Jul 11.

## Novel therapeutics for portal hypertension and fibrosis in chronic liver disease

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Portal hypertension (PH) is the most common non-neoplastic complication of chronic liver disease, determining clinical complications that lead to death or liver transplantation. PH results from increased resistance to portal blood flow through the cirrhotic liver, which is due to hepatic fibrosis and microcirculatory dysfunction. The present review focuses on the pathophysiology of fibrosis and PH, describes currently used treatments, and critically discusses potential therapeutic options.

# **NEUROLOGÍA**

J Neurol . 2020 Nov;267(11):3169-3176. doi: 10.1007/s00415-019-09382-1. Epub 2019 May 22.

# Gait and postural disorders in parkinsonism: a clinical approach

Cecilia Raccagni 1, Jorik Nonnekes 2, Bastiaan R Bloem 3, Marina Peball 1, Christian Boehme 1, Klaus Seppi 1, Gregor K Wenning 4

Abstract Disturbances of balance, gait and posture are a hallmark of parkinsonian syndromes. Recognition of these axial features can provide important and often early clues to the nature of the underlying disorder, and, therefore, help to disentangle Parkinson's disease from vascular parkinsonism and various forms of atypical parkinsonism, including multiple system atrophy, progressive supranuclear palsy, and corticobasal syndrome. Careful assessment of axial features is also essential for initiating appropriate treatment strategies and for documenting the outcome of such interventions. In this article, we provide an overview of balance, gait and postural impairment in parkinsonian disorders, focusing on differential diagnostic aspects.

# **PSIQUIATRÍA**

Curr Psychiatry Rep . 2020 Nov 12;22(12):81. doi:10.1007/s11920-020-01208-6.

## **Understanding Brain Mechanisms of Reactive Aggression**

Katja Bertsch 1 2, Julian Florange 3, Sabine C Herpertz 3

Abstract Purpose of review: To review the current literature on biobehavioral mechanisms involved in reactive aggression in a transdiagnostic approach. Recent findings: Aggressive reactions are closely related to activations in the brain's threat circuitry. They occur in response to social threat that is experienced as inescapable, which, in turn, facilitates angry approach rather than fearful avoidance. Provocation-induced aggression is strongly associated with anger and deficits in cognitive control including emotion regulation and inhibitory control. Furthermore, the brain's reward system plays a particular role in anger-related, tit-for-tat-like retaliatory aggression in response to frustration. More research is needed to further disentangle specific brain responses to social threat, provocation, and frustration. A better understanding of the psychological and neurobiological mechanisms involved in reactive aggression may pave the way for specific mechanism-based treatments, involving biological or psychotherapeutic approaches or a combination of the two.

#### PEDIATRÍA Y NEONATOLOGÍA

J Allergy Clin Immunol . 2020 Nov;146(5):960-966.e2. doi: 10.1016/j.jaci.2020.09.019. Epub 2020 Sep 28.

# Pediatric recurrent fever and autoinflammation from the perspective of an allergist/immunologist

Lori Broderick 1, Hal M Hoffman 2

Abstract Autoinflammatory diseases are monogenic and polygenic disorders due to dysregulation of the innate immune system. The inherited conditions have been clustered with primary immunodeficiencies in the latest practice parameters; however, these diseases have unique clinical presentations, genetics, and available therapies. Given the presentation of fevers, rashes, and mucosal symptoms observed in many of these syndromes, patients are likely to present to an allergist/immunologist. Although there has been attention in the literature to diagnosis and treatment of rare, genetically defined autoinflammatory disorders, physicians are challenged by increasing numbers of patients with intermittent or periodic fevers who face unnecessary morbidities due to a lack of a diagnosis. The broad differential of diseases presenting with fever includes autoinflammatory syndromes, infections associated with immunodeficiency and/or allergies complicated by infection, and less commonly, autoimmune disorders or malignancy. To address this challenge, we review the history of the medical approach to fever, current diagnostic paradigms, and controversies in management. We describe the spectrum of disorders referred to a recurrent fever disorders clinic established in an Allergy/Immunology division at a tertiary pediatric care center. Finally, we provide practical recommendations including historical features and initial laboratory investigations that can help clinicians appropriately manage these patients.

#### **GINECOLOGÍA OBSTETRICIA**

Am J Obstet Gynecol . 2020 Nov;223(5):674-708.e8. doi: 10.1016/j.ajog.2020.05.044. Epub 2020 May 28.

#### A systematic review of the psychosocial impact of fibroids before and after treatment

Virginia Arlene A Go 1, Martha C Thomas 2, Bhuchitra Singh 3, Sarah Prenatt 3, Holly Sims 3, Jaime F Blanck 3, James H Segars 4

Abstract Objective: Despite the high prevalence of uterine fibroids, the psychosocial impact of fibroids has not been evaluated across different quality of life indicators and compared with other chronic conditions. Here, we rigorously analyzed available evidence pertaining to the psychosocial burden of uterine fibroids in premenopausal women and compared validated quality of life and symptom scores before and after treatment. Data sources: We searched PubMed, PsycINFO, ClinicalTrials.gov, Embase, and Cochrane Library for publications from January 1990 to January 2020. Study eligibility criteria: We considered English-language publications that evaluated the association between uterine fibroids diagnosed by imaging studies in premenopausal women and quality of life by standardized and validated questionnaires at baseline and after treatment. We used a detailed list of terms related to quality of life, questionnaires, and uterine fibroids to conduct the search. Methods: Three reviewers screened titles and abstracts and then obtained full-text articles for further analysis. The reviewers assessed risk of bias using established Cochrane and Newcastle-Ottawa Scale guidelines.

The quality of life scores of premenopausal women with fibroids were reviewed at baseline and compared with those of published quality of life scores in other disease populations in addition to after fibroid treatment. Results: A total of 57 studies were included in the review: 18 randomized controlled trials and 39 observational studies. Of note, the 36-Item Short Form Survey and European Quality of Life Five-Dimension Scale questionnaires both indicated a diagnosis of uterine fibroids to have a disability score that was similar to or exceeded (was a greater psychosocial stressor) a diagnosis of heart disease, diabetes mellitus, or breast cancer. Quality of life scores were lower at baseline than after treatment in all instruments measuring these variables in women with uterine fibroids, indicating significantly impaired psychosocial functioning. Uterine fibroids were associated with significant patient-reported health disabilities related to bodily pain, mental health, social functioning, and satisfaction with sex life. Conclusion: A diagnosis of uterine fibroids was a significant psychosocial stressor among women at baseline and relative to other diseases. Validated quality of life instruments indicated therapeutic success and the improvement of both physical and emotional symptoms after treatment.

#### **ENDOCRINOLOGÍA Y METABOLISMO**

Neuroscience . 2020 Nov 1;447:167-181. doi: 10.1016/j.neuroscience.2019.10.021. Epub 2019 Nov 22.

#### Immunometabolic Changes in Glia - A Potential Role in the Pathophysiology of Obesity and Diabetes

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Abstract Chronic low-grade inflammation is a feature of the pathophysiology of obesity and diabetes in the CNS as well as peripheral tissues. Glial cells are critical mediators of the response to inflammation in the brain. Key features of glia include their metabolic flexibility, sensitivity to changes in the CNS microenvironment, and ability to rapidly adapt their function accordingly. They are specialised cells which cooperate to promote and preserve neuronal health, playing important roles in regulating the activity of neuronal networks across the brain during different life stages. Increasing evidence points to a role of glia, most notably astrocytes and microglia, in the systemic regulation of energy and glucose homeostasis in the course of normal physiological control and during disease. Inflammation is an energetically expensive process that requires adaptive changes in cellular metabolism and, in turn, metabolic intermediates can also have immunomodulatory actions. Such "immunometabolic" changes in peripheral immune cells have been implicated in contributing to disease pathology in obesity and diabetes. This review will discuss the evidence for a role of immunometabolic changes in glial cells in the systemic regulation of energy and glucose homeostasis, and how this changes in the context of obesity and diabetes.

# **NUTRICIÓN**

Eur J Clin Nutr. 2020 Nov;74(11):1498-1513. doi:10.1038/s41430-020-0558-y. Epub 2020 Jan 20.

# Vitamin D deficiency 2.0: an update on the current status worldwide

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Abstract Vitamin D testing and the use of vitamin D supplements have increased substantially in recent years. Currently, the role of vitamin D supplementation, and the optimal vitamin D dose and status, is a subject of debate, because large interventional studies have been unable to show a clear benefit (in mostly vitamin D replete populations). This may be attributed to limitations in trial design, as most studies did not meet the basic requirements of a nutrient intervention study, including vitamin D-replete populations, too small sample sizes, and inconsistent intervention methods regarding dose and metabolites. Vitamin D deficiency (serum 25-hydroxyvitamin D [25(OH)D] < 50 nmol/L or 20 ng/ml) is associated with unfavorable skeletal outcomes, including fractures and bone loss. A 25(OH)D level of >50 nmol/L or 20 ng/ml is, therefore, the primary treatment goal, although some data suggest a benefit for a higher threshold. Severe vitamin D deficiency with a 25(OH)D concentration below <30 nmol/L (or 12 ng/ml) dramatically increases the risk of excess mortality, infections, and many other diseases, and should be avoided whenever possible. The data on a benefit for mortality and prevention of infections, at least in severely deficient individuals, appear convincing. Vitamin D is clearly not a panacea, and is most likely efficient only in deficiency. Given its rare side effects and its relatively wide safety margin, it may be an important, inexpensive, and safe adjuvant therapy for many diseases, but future large and well-designed studies should evaluate this further. A worldwide public health intervention that includes vitamin D supplementation in certain risk groups, and systematic vitamin D food fortification to avoid severe vitamin D deficiency, would appear to be important. In this narrative review, the current international literature on vitamin D deficiency, its relevance, and therapeutic options is discussed.

# TRAUMATOLOGÍA, ORTOPEDIA Y MEDICINA DEL DEPORTE

Mayo Clin Proc . 2020 Nov;95(11):2499-2508. doi: 10.1016/j.mayocp.2020.02.007. Epub 2020 Jul 29.

#### Recognizing Axial Spondyloarthritis: A Guide for Primary Care

Marina N Magrey 1, Abhijeet S Danve 2, Joerg Ermann 3, Jessica A Walsh 4

Abstract Axial spondyloarthritis (axSpA) is an important cause of chronic low back pain and affects approximately 1% of the US population. The back pain associated with axSpA has a characteristic pattern referred to as inflammatory back pain (IBP). Features of IBP include insidious onset before age 45 years, association with morning stiffness, improvement with exercise but not rest, alternating buttock pain, and good response to treatment with nonsteroidal anti-inflammatory drugs. In patients with IBP, it is essential to look for other features associated with spondyloarthritis (SpA), such as enthesitis, dactylitis, peripheral arthritis, extra-articular manifestations (eg, psoriasis, uveitis, or inflammatory bowel disease), human leukocyte antigen B27 positivity, and a family history of SpA. Axial SpA is underrecognized, and a delay of several years between symptom onset and diagnosis is common.

However, with new and effective therapies available for the treatment of active axSpA, early recognition and diagnosis are of critical importance. For this narrative review, we conducted a literature search of English-language articles using PubMed. Individual searches were performed to identify potential articles of interest related to axSpA (search terms: ["axSpA" OR "axial SpA" OR "axial spondyloarthritis" OR "ankylosing spondylitis"]) in combination with terms related to IBP ("inflammatory back pain" OR "IBP" OR "chronic back pain" OR "CBP" OR "lower back pain" OR "LBP"), diagnosis (["diagn " OR "classification"] AND ["criteria" OR "recommend " OR "guidelines"]), and referral ("refer "). No date range was formally selected, as we were interested in providing an overview of the evolution of these concepts in clinical practice. We supplemented the review with insights based on our clinical expertise. Patients with chronic back pain should be screened for IBP and other SpA features; suspicion for axSpA should trigger referral to a rheumatologist for further evaluation.

#### **OTORRINOLARINGOLOGÍA**

Eur Ann Allergy Clin Immunol. 2020 Nov 12. doi: 10.23822/EurAnnACI.1764-1489.176. Online ahead of print.

#### Allergic rhinits: impact on quality of life of adolescents

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Abstract Adolescence is one of the most rapid phases of human development, in which biological maturity precedes psychosocial maturity. Rhinoconjunctivitis (ARC) is present in around 15 percent of 13-14-year-old children, which indicates a higher prevalence when compared with 6-7-year-old children (8.5 percent). During childhood (0-10 years) prevalence of Allergic Rhinitis (AR) is higher among males compared to females. Quite the reverse, during adolescence (11-17 years) females display higher prevalence of AR compared to males. However, when they reach adulthood (18-79 years), there is no difference in prevalence between genders. AR and ARC have significant physical and mental impacts on the QoL of adolescents and their parents. Apart from the adverse effects of most antihistamines, which include sedating effects, AR-ARC leads to school absences and poorer performance due to distraction, fatigue and irritability. The mobile technology facilitates an innovative investigatory approach to better and more precisely characterize allergy symptoms and their association with other allergic diseases. The success of treatment lies in the partnership between adolescents with AR and mobile technology, allowing them to have more information both on the disease and treatment. Adolescence is a special period in which AR is highly prevalent with some sex-dependent differences. There are also peculiarities on how AR affects QoL of adolescent patients.

## **UROLOGÍA**

Cells . 2020 Nov 5;9(11):E2420. doi: 10.3390/cells9112420.

#### Cellular Senescence in Renal and Urinary Tract Disorders

Yohan Santin 1, Philippe Lluel 2, Pascal Rischmann 3, Xavier Gamé 3, Jeanne Mialet-Perez 1, Angelo Parini 1

Abstract Cellular senescence is a state of cell cycle arrest induced by repetitive cell mitoses or different stresses, which is implicated in various physiological or pathological processes. The beneficial or adverse effects of senescent cells depend on their transitory or persistent state. Transient senescence has major beneficial roles promoting successful post-injury repair and inhibiting malignant transformation. On the other hand, persistent accumulation of senescent cells has been associated with chronic diseases and age-related illnesses like renal/urinary tract disorders. The deleterious effects of persistent senescent cells have been related, in part, to their senescence-associated secretory phenotype (SASP) characterized by the release of a variety of factors responsible for chronic inflammation, extracellular matrix adverse remodeling, and fibrosis. Recently, an increase in senescent cell burden has been reported in renal, prostate, and bladder disorders. In this review, we will summarize the molecular mechanisms of senescence and their implication in renal and urinary tract diseases. We will also discuss the differential impacts of transient versus persistent status of cellular senescence, as well as the therapeutic potential of senescent cell targeting in these diseases.



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