Selección de Resúmenes de Menopausia

Semana del 8 al 14 de abril de 2020

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Do nothing but observe microprolactinomas: when and how to replace sex hormones?

Bonert V1.

Hyperprolactinemia is associated with suppression of the hypothalamic- pituitary-gonadal axis and consequent hypogonadism, manifesting loss of libido, infertility and osteoporosis long-term in both male and female patients, with associated menstrual irregularities, amenorrhea and galactorrhea in women and erectile dysfunction in men. The primary goals of therapy in patients harboring prolactinoma are control of tumor size and normalization of serum PRL, with restoration of gonadal and sexual function and fertility. Clinical manifestations of hypogonadism have variable consequences depending on the age and sex of the patient and desire for fertility. Careful consideration of clinical consequences of hyperprolactinemia in relation to age and sex should help guide therapeutic decision making. Another important consideration in attaining our treatment goals in patients harboring microprolactinomas, is the observation that greater than 90% of microprolactinomas do not enlarge, when followed for 10 years. Treatment options for the management of microprolactinomas include observation alone, with monitoring of serum prolactin levels every 6-12 months, vs initiation of dopamine agonist therapy vs gonadal steroid hormone replacement (using the oral contraceptive or other combination estrogen and progesterone replacement regimens in females or testosterone replacement therapy in males). In the present review, current data related to clinical consequences of microprolactinomas and treatment outcomes at different stages in the lifespan are reviewed, with a suggested algorithm as to whether to treat or not, and an appropriate therapeutic regimen to institute.

J Osteoporos. 2020 Mar 25;2020:5360467. doi: 10.1155/2020/5360467. eCollection 2020.

Epidemiology and Direct Medical Cost of Osteoporotic Hip Fracture in Chile.

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The osteoporotic hip fracture is associated with a high impact on morbidity, mortality, and health expenditure. The Chilean health system is made up of a mixed care system, with the public system called FONASA and the private system called ISAPRE. The people with lower incomes are listed on FONASA and correspond to 80.8% of the population. The aims of this study were to describe the incidence of hip fracture in the Chilean population from the age of 45 years and to estimate the direct medical cost of this disease. The records of the Department of the Health Statistics and Information of the Ministry of Health were used, from which the number of national hospital discharges due to hip fractures was obtained (codes S720, S721, and S722 of the ICD-10), in adults aged 45 years or older, by sex, from 2006 to 2017. The cost of osteoporotic hip fracture treatment in the public health system was obtained from the data of the surgical treatment according to the payment method associated with diagnosis (PAD bonus). A surgical intervention budget was used in a private clinic to calculate the direct cost of osteoporotic hip fracture in the private system. Between 2006 and 2017, the number of hospital discharges due to osteoporotic hip fracture in adults aged 45 years and older has increased progressively, registering 9.583 hospital discharges for this cause in 2017, which corresponds to 50% more than those recorded in 2006, with a 3 : 1 F/M ratio. The mean annual rate of hip fractures is 148.7 per 100,000 inhabitants aged above 45 years. The individual cost of managing an osteoporotic hip fracture in the public system was USD$ 3,919, and USD$ 9,092 in the private health system. The incidence of hip fracture was comparable with data from Southern European countries and from neighboring countries, such as Argentina and Uruguay. Hospitalization cost of hip fracture in Chile was 34 million USD per year. Hip fracture constitutes a serious healthcare problem in Chile, and efforts for the prevention and management of osteoporosis are needed.

Nutrients. 2020 Apr 7;12(4). pii: E1011. doi: 10.3390/nu12041011.

Calcium and/or Vitamin D Supplementation for the Prevention of Fragility Fractures: Who Needs It?

Reid IR1,2, Bolland MJ1,2.

Vitamin D and calcium have different biological functions, so the need for supplementation, and its safety and efficacy, need to be evaluated for each separately. Vitamin D deficiency is usually the result of low sunlight exposure (e.g., in frail older people, those who are veiled, those with dark-skin living at higher latitudes) and is reversible with calciferol 400-800 IU/day. Calcium supplements produce a 1% increase in bone density in the first year of use, without further increases subsequently. Vitamin D supplements do not improve bone density in clinical trials except in analyses of subgroups with baseline levels of 25-hydroxyvitamin D <30 nmol/L. Supplementation with calcium, vitamin D, or their combination does not prevent fractures in community-dwelling adults, but a large study in vitamin D-deficient nursing home residents did demonstrate fracture prevention. When treating osteoporosis, co-administration of calcium with anti-resorptive drugs has not been shown to impact on treatment efficacy. Correction of severe vitamin D deficiency (<25 nmol/L) is necessary before use of potent anti-resorptive drugs to avoid hypocalcemia. Calcium supplements cause gastrointestinal side effects, particularly constipation, and increase the risk of kidney stones and, probably, heart attacks by about 20%. Low-dose vitamin D is safe, but doses >4000 IU/day have been associated with more falls and fractures. Current evidence does not support use of either calcium or vitamin D supplements in healthy community-dwelling adults.

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Thyroid Hormone Diseases and Osteoporosis.

Delitala AP1, Scuteri A1, Doria C1.

Thyroid hormones are essential for normal skeletal development and normal bone metabolism in adults but can have detrimental effects on bone structures in states of thyroid dysfunction. Untreated severe hyperthyroidism influences the degree of bone mass and increases the probability of high bone turnover osteoporosis. Subclinical hyperthyroidism, defined as low thyrotropin (TSH) and free hormones within the reference range, is a subtler disease, often asymptomatic, and the diagnosis is incidentally made during screening exams. However, more recent data suggest that this clinical condition may affect bone metabolism resulting in decreased bone mineral density (BMD) and increased risk of fracture, particularly in postmenopausal women. The main causes of exogenous subclinical hyperthyroidism are inappropriate replacement dose of thyroxin and TSH suppressive L-thyroxine doses in the therapy of benign thyroid nodules and thyroid carcinoma. Available data similarly suggest that a long-term TSH suppressive dose of thyroxin may decrease BMD and may induce an increased risk of fracture. These effects are particularly observed in postmenopausal women but are less evident in premenopausal women. Overt hypothyroidism is known to lower bone turnover by reducing both osteoclastic bone resorption and osteoblastic activity. These changes in bone metabolism would result in an increase in bone mineralization. At the moment, there are no clear data that demonstrate any relationship between BMD in adults and hypothyroidism. Despite these clinical evidences, the cellular and molecular actions of thyroid hormones on bone structures are not complete clear.

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Association between depressed mood and sexual function among mid-aged Paraguayan women.

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Background: Depressive symptoms may affect female mid-life sexuality, whereas sexual problems tend to aggravate depression. Despite this, data assessing this association drawn from mid-aged Paraguayan women are scarce.Objective: This study aimed to assess the association between depressed mood and the risk of sexual dysfunction during female mid-life.Methods: Sexually active urban-living women from Asunción, Paraguay (n = 193, aged 40-60 years) were surveyed with the 6-item Female Sexual Function Index (FSFI-6), the 10-item Center for Epidemiological Studies Depression Scale (CESD-10), and a general questionnaire containing personal and partner information. Depressed mood was defined as a total CESD-10 score of 10 or more, and an increased risk for sexual dysfunction as an FSFI-6 total score of 19 or less. The association of depressed mood and an increased risk of sexual dysfunction was evaluated with multivariable Poisson regression.Results: The mean age (±standard deviation) of surveyed woman was 48.3 ± 6.0 years and 61.1% (n = 118) were perimenopausal and postmenopausal. A total of 21.8% (n = 42) had depressed mood and 28.5% (n = 55) had an increased risk of sexual dysfunction. The final adjusted regression model determined that women with depressed mood were twice as likely to have an increased risk of sexual dysfunction, compared to women with normal mood (adjusted prevalence ratio = 2.14, 95% confidence interval 1.26-3.60). On the other hand, depressed mood was associated with a mean total FSFI-6 score that was 20% lower than that observed among women with normal mood (adjusted incidence rate ratio = 0.80, 95% confidence interval 0.68-

0.93).Conclusion: In this mid-aged Paraguayan female sample there was a significant association between depressed mood and an increased risk of sexual dysfunction.

Front Endocrinol (Lausanne). 2020 Mar 24;11:122. doi: 10.3389/fendo.2020.00122. eCollection 2020.(FREE)

The Interplay Between Bone and Glucose Metabolism.

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The multiple endocrine functions of bone other than those related to mineral metabolism, such as regulation of insulin sensitivity, glucose homeostasis, and energy metabolism, have recently been discovered. In vitro and murine studies investigated the impact of several molecules derived from osteoblasts and osteocytes on glucose metabolism. In addition, the effect of glucose on bone cells suggested a mutual cross-talk between bone and glucose homeostasis. In humans, these mechanisms are the pivotal determinant of the skeletal fragility associated with both type 1 and type 2 diabetes. Metabolic abnormalities associated with diabetes, such as increase in adipose tissue, reduction of lean mass, effects of hyperglycemia per se, production of the advanced glycation end products, diabetes-associated chronic kidney disease, and perturbation of the calcium-PTH-vitamin D metabolism, are the main mechanisms involved. Finally, there have been multiple reports of antidiabetic drugs affecting the skeleton, with differences among basic and clinical research data, as well as of anti-osteoporosis medication influencing glucose metabolism. This review focuses on the aspects linking glucose and bone metabolism by offering insight into the most recent evidence in humans.

Transl Androl Urol. 2020 Mar;9(Suppl 2):S135-S148. doi: 10.21037/tau.2019.11.02. (FREE)

Selective androgen receptor modulators: the future of androgen therapy?

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Selective androgen receptor modulators (SARMs) are small molecule drugs that function as either androgen receptor (AR) agonists or antagonists. Variability in AR regulatory proteins in target tissues permits SARMs to selectively elicit anabolic benefits while eschewing the pitfalls of traditional androgen therapy. SARMs have few side effects and excellent oral and transdermal bioavailability and may, therefore, represent viable alternatives to current androgen therapies. SARMs have been studied as possible therapies for many conditions, including osteoporosis, Alzheimer's disease, breast cancer, stress urinary incontinence (SUI), prostate cancer (PCa), benign prostatic hyperplasia (BPH), male contraception, hypogonadism, Duchenne muscular dystrophy (DMD), and sarcopenia/muscle wasting/cancer cachexia. While there are no indications for SARMs currently approved by the Food and Drug Administration (FDA), many potential applications are still being explored, and results are promising. In this review, we examine the literature assessing the use of SARMS for a number of indications.

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Bone Mass Loss and Sarcopenia in Ecuadorian Patients.

Intriago M1, Maldonado G1, Guerrero R1, Messina OD2, Rios C1.

Objective: To study the association between osteoporosis and sarcopenia and determine the prevalence of osteosarcopenia in patients who attended a rheumatology center in Ecuador. Methods: A cross-sectional study was conducted in a population of patients who had a densitometric study. The diagnosis of sarcopenia was determined by the DXA standard gold test, screening, and conventional methods (bioimpedance, anthropometric measurements, SARC-F, muscle function, and gait test). Results: A total of 92 patients were studied. The median age was 66 ± 10, 90% females. Using the criteria of SMI, 65% had sarcopenia of which 9% had only sarcopenia and 56% had osteosarcopenia; 22% had only osteopenia/osteoporosis; and 13% none of these conditions. The prevalence of sarcopenia according to handgrip strength was 60%, gait speed 45%, and SARC-F score 40%. The prevalence of osteosarcopenia according to handgrip strength was 51%, gait speed 34%, and SARC-F score 32%. Osteoporosis was associated with a higher prevalence of sarcopenia using the criteria of SMI since 40% had sarcopenia in the normal DXA group, 64% in the osteopenia group, and 76% in the osteoporosis group ($p=0.017$). Of the women, 69% had sarcopenia compared to 33% of the men ($p=0.034$). The BMI was lower in the group with sarcopenia (25.1 ± 4.1 kg/m2) compared to the group without sarcopenia (29.4 ± 4.1 kg/m2, $p < 0.001$). Patients with osteosarcopenia and sarcopenia had lower BMI, handgrip strength, ASM, SMI, and total-body skeletal muscle mass than those with osteopenia/osteoporosis or normal patients. Conclusion: 65% of the studied population had sarcopenia. It is clear that the prevalence of sarcopenia is higher in patients with greater loss of bone mass. Identifying pathways that affect both bone and muscle could facilitate the development of treatments that simultaneously improve osteoporosis and sarcopenia.

Maturitas. 2020 May;135:74-79. doi: 10.1016/j.maturitas.2020.03.006. Epub 2020 Mar 17.

Early menopause is associated with increased risk of arterial hypertension: A systematic review and meta-analysis.

Anagnostis P1, Theocharis P2, Lallas K, Konstantis G, Mastrogiannis K, Bosdou JK, Lambrinoudaki I, et al.

OBJECTIVE: Menopausal transition has been associated with an increased risk of cardiovascular disease (CVD), mainly attributed to atherogenic dyslipidaemia, central obesity and insulin resistance. Whether arterial hypertension (AH) also contributes to menopause-associated CVD is currently unknown. The aim of this study was to systematically investigate and meta-analyze the best available evidence regarding the association between early menopause (EM) and AH risk. METHODS: A comprehensive search was conducted in PubMed, CENTRAL and Scopus databases, up to January 20th, 2020. Data were expressed as odds ratio (OR) with 95 % confidence intervals (CI). The I2 index was employed for heterogeneity. RESULTS: Ten studies were included in the quantitative analysis (273,994 postmenopausal women, 76853 cases with AH). Women with EM (age at menopause <45 years) were at higher AH risk compared with those of normal age at menopause (>45 years) (OR 1.10, 95 % CI 1.01-1.19, p = 0.03; I2 79 %). The direction or the magnitude of this association remained significant when the analysis was restricted to studies including groups matched for potential confounders, such as age, BMI, smoking or the use of menopausal hormone therapy or oral contraceptives. CONCLUSIONS: Women with EM have an increased risk for AH compared with those of normal age at menopause.