

Selección de Resúmenes de Menopausia

Semana del 20 al 26 de mayo, 2020

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A systematic review and meta-analysis of vitamin D and calcium in preventing osteoporotic fractures.

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To assess and update the effect of the combination of vitamin D and calcium in the reduction of osteoporotic fractures, a systematic review across Cochrane Database, NIHR HTA database, PubMed and Google Scholar was performed using mesh terms : Cohort studies OR Prospective Studies OR Longitudinal Studies OR Follow-Up Studies OR Incidence OR Risk OR Rate and Osteoporotic Fractures OR Fractures, Bone OR Fractures, Spontaneous OR Spinal Fractures OR Humeral Fractures OR Hip Fractures OR Femoral Neck Fractures AND Vitamin D AND Calcium and key words: vitamin D, fractures, osteoporosis, calcium, dietary supplements. Statistical analysis was performed with Review Manager (RevMan 5.3) using relative risk and confidence interval 95%. The combination reduced total fractures and hip fractures while no effect was observed in wrist fractures. The combination was also well tolerated. Only minor side effects were reported. This systematic review suggests that the combination of vitamin D and calcium can exert a beneficial effect towards osteoporotic fracture reduction.

Diabetes Res Clin Pract. 2020 May 21:108232. doi: 10.1016/j.diabres.2020.108232. [Epub ahead of print]

Use of metformin and risk of breast and colorectal cancer.

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BACKGROUND: Diabetes has been associated with increased risk of cancer, including breast cancer and colorectal cancer. Metformin, an oral hypoglycemic drug, but not other anti-diabetic drugs, has been associated with reduced risk of breast and of colon cancers in some, but not in other, studies. METHODS: Data from two large-scale, population-based, case-control studies of breast and colorectal cancers etiology, conducted in Northern Israel since 1998 were analyzed to evaluate the association between regular use (>3 times) of metformin prior to diagnosis and risk of developing cancer. The multivariate analyses for both cancer sites included age, family history of breast/colorectal cancer, history of diabetes, sports participation, fruits/vegetables consumption, aspirin and statins use, and for breast cancer, also included use of oral contraceptives and postmenopausal hormones and number of pregnancies. Use of metformin and diabetes status were determined based on valid electronic medical records of the participants. RESULTS: Metformin use prior to diagnosis of cancer was associated with a decrease in risk of both breast cancer (OR=0.821, 0.726-0.928, p=0.002) and colorectal cancer (OR=0.754, 0.623-0.912, p=0.004). An inverse association was not identified with use of other anti-diabetic medications. Diabetes was found to be associated with risk of colorectal cancer (OR=1.204, 1.014-1.431, p=0.034) but not of breast cancer. No dose response by years of use of metformin was found. CONCLUSION: These analyses of large population-based studies provide evidence of a strong inverse association of metformin with breast and, even more so, with colorectal cancer risk.

Sex Med Rev. 2020 May 17. pii: S2050-0521(20)30033-0. doi: 10.1016/j.sxm.2020.03.003. [Epub ahead of print]

Testosterone and Vaginal Function.

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INTRODUCTION: Androgens have been shown to exert beneficial effects on vaginal physiology, at least partially independent of their aromatization to estrogens. Androgen deficiency in the vagina and in the other genitourinary tissues contributes to the development of vulvovaginal atrophy and genitourinary syndrome of menopause, resulting in impaired arousal and lubrication and dyspareunia. OBJECTIVES: To summarize the role of testosterone in modulating vaginal structure and function. METHODS: A qualitative review of the relevant literature on the topic was performed using the PubMed database. We present a summary of preclinical and clinical evidence supporting the involvement of testosterone (T) in vaginal physiopathology and discuss it in terms of the role of the vagina in female sexual response. RESULTS: Androgens are important in the differentiation of the vagina and in maintaining trophic and functional actions in postnatal life, as suggested by the detection of the androgen receptor and of the key enzymes involved in androgen synthesis. T is essential for the integrity of vaginal tissue structure (including non-vascular smooth muscle thickness and contractility and collagen fiber compactness) and for the complex neurovascular

processes that regulate arousal and lubrication (vascular smooth muscle relaxation via the NO/cGMP/PDE5 pathway, nerve fiber density and neurotransmission). T has also been reported to modulate nociception, inflammation, and mucin secretion within the vagina. Available and potential androgen-based treatments for vulvovaginal atrophy/genitourinary syndrome of menopause and for other conditions leading to female genital arousal disorder and dyspareunia are presented. **CONCLUSIONS:** The vagina is both an androgen-target and synthesis organ. Preclinical and clinical data consistently suggest that T plays an important role in maintaining vaginal health and genital sexual function.

Endocr Pract. 2020 May;26(5):564-570. doi: 10.4158/GL-2020-0524.

American Association of Clinical Endocrinologists/American College of Endocrinology Clinical Practice Guidelines for the Diagnosis and Treatment of Postmenopausal Osteoporosis- 2020 Update Executive Summary.

Camacho PM, Petak SM, Binkley N, Diab DL, Eldeiry LS, Farooki A, Harris ST, Hurley DL, Kelly J, Lewiecki EM, Pessah-Pollack R, McClung M, Wimalawansa SJ, Watts NB.

Objective: The development of these guidelines is sponsored by the American Association of Clinical Endocrinologists (AACE) Board of Directors and American College of Endocrinology (ACE) Board of Trustees and adheres with published AACE protocols for the standardized production of clinical practice guidelines (CPGs). **Methods:** Recommendations are based on diligent reviews of the clinical evidence with transparent incorporation of subjective factors, according to established AACE/ACE guidelines for guidelines protocols. **Results:** The Executive Summary of this 2020 updated guideline contains 52 recommendations: 21 Grade A (40%), 24 Grade B (46%), 7 Grade C (14%), and no Grade D (0%). These detailed, evidence-based recommendations allow for nuance-based clinical decision-making that addresses multiple aspects of real-world care of patients. The evidence base presented in the subsequent Appendix provides relevant supporting information for the Executive Summary recommendations. This update contains 368 citations: 123 (33.5%) evidence level (EL) 1 (highest), 132 (36%) EL 2 (intermediate), 20 (5.5%) EL 3 (weak), and 93 (25%) EL 4 (lowest). New or updated topics in this CPG include: clarification of the diagnosis of osteoporosis, stratification of the patient according to high-risk and very-high-risk features, a new dual-action therapy option, and transitions from therapeutic options. **Conclusion:** This guideline is a practical tool for endocrinologists, physicians in general, regulatory bodies, health-related organizations, and interested laypersons regarding the diagnosis, evaluation, and treatment of post-menopausal osteoporosis.

Biomed Res Int. 2020 Apr 29;2020:2168381. doi: 10.1155/2020/2168381. eCollection 2020.

Prevalence of Metabolic Syndrome and Nonalcoholic Fatty Liver Disease among Premenopausal and Postmenopausal Women in Ho Municipality: A Cross-Sectional Study.

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Methods: A cross-sectional study was conducted among 185 participants: 88 premenopausal and 97 postmenopausal women obtaining healthcare service from Ho Teaching Hospital (HTH) and Ho Municipal Hospital from November 2018 to January 2020. Questionnaires were administered, and direct anthropometric measurements were taken. Blood samples were collected between 8:00 am and 10:00 am after overnight fast (12 to 18 hours; ≥ 8 hours) to assess fasting blood glucose, fasting lipids, alanine aminotransferase (ALT), aspartate aminotransferase (AST), and gamma-glutamyl transferase (GGT) concentrations at HTH laboratory using standard measuring procedures. This study in diagnosing metabolic syndrome and nonalcoholic fatty liver disease employed the National Cholesterol Education Program Adult Treatment Panel III (NCEP-ATPIII) criteria and the Bedogni fatty liver index algorithm, respectively. **Results:** The overall prevalence of MetS and NAFLD was 24.86% and 40.00% using NCEP-ATPIII and Bedogni fatty liver index algorithm, respectively. The prevalence of MetS and NAFLD among postmenopausal women was 32.99% and 49.48%, respectively, higher than 15.91% and 29.55%, respectively, observed among premenopausal women. The most prevalent MetS component among the study population was abdominal obesity (68.65%) which was significantly higher among the postmenopausal women (82.47%) than premenopausal women (53.41%) (<0.001). Hyperglycemia and hypertension were the major significant risk factors for developing MetS among premenopausal women whereas high triglyceride was the highest risk factor found among the postmenopausal women. Obesity and abdominal obesity were the most likely risk factors for developing nonalcoholic fatty liver disease among both premenopausal and postmenopausal women. Comorbidities of MetS and NAFLD were significant risk factors for developing cardiovascular diseases (CVD) (OR = 5.2, 95%CI = 2.2-12.4; $p < 0.001$). **Conclusion:** This study established a

significant association between coronary artery disease and comorbidities of MetS and NAFLD among the studied participants. Both conditions were found to be more prevalent among postmenopausal women compared to premenopausal women. Abdominal obesity was the most prevalent MetS component among the population. Women should be monitored for the two conditions and be educated on adopting healthy lifestyles to minimize the incidence of these conditions.

Endocrinol Metab Clin North Am. 2020 Jun;49(2):215-228. doi: 10.1016/j.ecl.2020.02.008. Epub 2020 Apr 16.
Sex Differences in Adipose Tissue Function.

Gavin KM1, Bessesen DH2.

Regional adipose tissue distribution differs between men and women. Differences in the accumulation of adipose tissue as well as the regulation of secretion of a number of products from adipose tissue are under the control of sex steroids, which act through a wide variety of mechanisms, both direct and indirect, to tailor metabolism to the unique needs of each sex. A fuller understanding of sex-based differences in adipose tissue function may help with tailored strategies for disease prevention and treatment and provide insights into fundamental differences in the processes that regulate nutrient homeostasis and body weight.