Selección de Resúmenes de Menopausia

Semana del 26 de Septiembre al 2 de Octubre de 2018

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Alendronate improves fasting plasma glucose and insulin sensitivity and decreases insulin resistance in prediabetic osteopenic postmenopausal women: a randomized triple-blind clinical trial.

Karimi Fard M, Aminorroaya A, Kachuei A, Salamat MR, Hadi Alijanvand M, Aminorroaya Yamini S et al

AIMS: Postmenopausal women receive bisphosphonates for osteoporosis treatment. The effect of these medications on developing diabetes mellitus (DM) in prediabetic patients is yet to be investigated. We aimed to determine the effect of alendronate on plasma glucose, insulin indices of postmenopausal women with prediabetes and osteopenia. METHODS: This triple-blind randomized controlled clinical trial included 60 postmenopausal women, aged 45-60 years. All patients were vitamin D sufficient. They were randomly enrolled in intervention (70 mg/week alendronate for 12 week) and control (placebo tablet per week for 12 weeks) groups. The morning 8 hour fasting blood samples were collected at the baseline and follow-up visits to measure the fasting plasma glucose (FPG) (mg/dl), insulin and hemoglobin A1c (HbA1c). Plasma glucose and insulin concentration were measured 30, 60, and 120 minutes after glucose tolerance test. Matsuda index, homeostasis model assessment of insulin resistance (HOMA-IR), homeostasis model assessment of beta-cell function (HOMA-B) and the area under the curves (AUC) of glucose and insulin were calculated. RESULTS: Mean (SD) FPG (102.43 (1.46) mg/dl vs. 94.23)1.17) mg/dl, P=0.001), 120-minutes insulin concentration (101.86)15.70) mU/l vs. 72.60 (11.36), P=0.026), HbA1c (5.60 (0.06) % vs. 5.40 (0.05)%, P=0.001), HOMA-IR (3.57 (0.45) vs. 2.62 (0.24), P=0.021) and Matsuda index (7.7 (0.41) vs. 9.2 (0.4), P=0.001) significantly improved in the alendronate-treated group. There was statistically significant more reductions in FPG (-8.2 (8.63) mg/dl vs. -2.5 (14.26) mg/dl, P=0.002) and HbA1c (-0.2 (0.23) % vs. -0.09 (0.26) %, P=0.015) were observed in alendronate-treated group than placebo group during the study course, respectively. CONCLUSIONS: Administration of 70 mg/week alendronate improves fasting plasma glucose, HbA1c and insulin indices in postmenopausal women.

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The Obesity and the Risk of Breast Cancer among Pre and Postmenopausal Women

Gravena AAF, Romeiro Lopes TC, Demitto MO, Borghesan DHP, Dell' Agnolo CM, Brischiliari SCR, et al.

BACKGROUND: Breast cancer is the most common cancer among women worldwide and the obesity is one of the factors related to the risk of breast cancer mainly in postmenopausal women. This study investigated the association between obesity in pre- and postmenopausal women with the development of breast cancer and the expression of estrogen, progesterone, HeR-2 and triple-negative (TN) receptors. METHODS: A case-control study was conducted on 100 patients with recently diagnosed breast cancer and 400 age-matched controls. The women were divided into pre- and post-menopausal groups. RESULTS: The multivariate analysis showed that postmenopausal women with a BMI ≥ 30 kg/m2 at pre-diagnosis and at the most recent measurement were 1.50 (95% CI 1.06-2.13) and 1.56 (95% CI 1.11-2.21) times more likely to develop breast cancer, respectively. These women had a prevalence of obesity of 27.7% when considering pre-diagnosis BMI and 29.4% when analyzing the indicator of recent BMI. When only the cases regarding the presence of obesity with clinicopathological variables were analyzed, a total of 95.2% of the postmenopausal women with pre-diagnostic obesity according to BMI presented the positive estrogen receptor (ER) subtype. CONCLUSIONS: In Brazilian women, there is an association between obesity and the risk of breast cancer postmenopause; moreover, there is an association between the occurrence of the positive ER subtype in postmenopausal women and pre-diagnostic obesity according to BMI.

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Artificial Intelligence Applied to Osteoporosis: A Performance Comparison of Machine Learning Algorithms in Predicting Fragility Fractures From MRI Data.

Ferizi U, Besser H, Hysi P, Jacobs J, Rajapakse CS, Chen C, Saha PK, Honig S, Chang G.
BACKGROUND: A current challenge in osteoporosis is identifying patients at risk of bone fracture. PURPOSE: To identify the machine learning classifiers that predict best osteoporotic bone fractures and, from the data, to highlight the imaging features and the anatomical regions that contribute most to prediction performance. STUDY TYPE Prospective (cross-sectional) case-control study. POPULATION: Thirty-two women with prior fragility bone fractures, of mean age = 61.6 and body mass index (BMI) = 22.7 kg/m2, and 60 women without fractures, of mean age = 62.3 and BMI = 21.4 kg/m2. Field Strength/ Sequence: 3D FLASH at 3T. ASSESSMENT: Quantitative MRI outcomes by software algorithms. Mechanical and topological microstructural parameters of the trabecular bone were calculated for five femoral regions, and added to the vector of features together with bone mineral density measurement, fracture risk assessment tool (FRAX) score, and personal characteristics such as age, weight, and height. We fitted 15 classifiers using 200 randomized cross-validation datasets. Statistical Tests: Data: Kolmogorov-Smirnov test for normality. Model Performance: sensitivity, specificity, precision, accuracy, F1-test, receiver operating characteristic curve (ROC). Two-sided t-test, with $P < 0.05$ for statistical significance. RESULTS: The top three performing classifiers are RUS-boosted trees (in particular, performing best with head data, $F1 = 0.64 \pm 0.03$), the logistic regression and the linear discriminant (both best with trochanteric datasets, $F1 = 0.65 \pm 0.03$ and $F1 = 0.67 \pm 0.03$, respectively). A permutation of these classifiers comprised the best three performers for four out of five anatomical datasets. After averaging across all the anatomical datasets, the score for the best performer, the boosted trees, was $F1 = 0.63 \pm 0.03$ for All-features dataset, $F1 = 0.52 \pm 0.05$ for the no-MRI dataset, and $F1 = 0.48 \pm 0.06$ for the no-FRAX dataset. Data Conclusion: Of many classifiers, the RUS-boosted trees, the logistic regression, and the linear discriminant are best for predicting osteoporotic fracture. Both MRI and FRAX independently add value in identifying osteoporotic fractures. The femoral head, greater trochanter, and inter-trochanter anatomical regions within the proximal femur yielded better F1-scores for the best three classifiers.

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Surgical Menopause and Frailty Risk in Community-Dwelling Older Women: Study of Osteoporotic Fractures.

Huang G, Coviello A, LaValley MP, Ensrud KE, Cauley JA, Cawthon PM, Fredman L.
OBJECTIVES: To determine whether women with surgical menopause have a higher risk of frailty than naturally menopausal women. DESIGN: Prospective cohort study with up to 18 years of follow-up. SETTING: Four U.S clinical centers. PARTICIPANTS: Community-dwelling white women aged 65 and older (mean 71.2±5.2) enrolled in the Study of Osteoporotic Fractures (N=7,699). MEASUREMENTS: Surgical menopause was based on participant self-report of having undergone bilateral oophorectomy before menopause. The outcome was incident frailty, classified as robust, prefrail, frail, or death at 4 follow-up interviews, conducted 6 to 18 years after baseline. Information on baseline serum total testosterone concentrations was available for 541 participants. RESULTS: At baseline, 12.6% reported surgical menopause. Over the follow-up period, 22.0% died, and 10.1% were classified as frail, 39.7% as prefrail, and 28.3% as robust. Surgically menopausal women had significantly lower total serum testosterone levels (13.2 ± 7.8 ng/dL) than naturally menopausal women (21.7 ± 14.8 ng/dL) (p=0.000), although they were not at greater risk of frailty (adjusted odds ratio (aOR)=0.94, 95% confidence interval (CI)=0.72-1.22), prefrailty (aOR=0.96, 95% CI=0.80-1.10), or death (aOR=1.17, 95% CI=0.97-1.42) after adjusting for age, body mass index, and number of instrumental activity of daily living impairments. There was no evidence that oral estrogen use modified these associations. CONCLUSION: In postmenopausal women, surgical menopause was not associated with greater risk for frailty than natural menopause, even in the absence of estrogen therapy. Future prospective studies are needed to investigate hormonal mechanisms involved in development of frailty in older postmenopausal women.

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ACOG Committee Opinion No. 755 Summary: Well-Woman Visit.

A well-woman visit provides an excellent opportunity to counsel patients about maintaining a healthy lifestyle and minimizing health risks. Given the shifting and complex landscape of care, in which many women may not receive all the recommended preventive services, obstetrician-gynecologists have an opportunity to contribute to the overall health and well-being of women throughout the lifespan by providing recommended preventive services and counseling. Taking a comprehensive history (specifically obtaining detailed information on symptoms and past medical and gynecologic history) will inform if certain components of the physical examination, including breast or pelvic examination, are indicated at that visit and will inform shared decision making for these examinations. Family

history should be used as a risk assessment tool and should be completed and updated regularly to ensure the most comprehensive assessment of a woman's personal risk factors. Another key component of a well-woman visit for a reproductive-aged woman is the development and discussion of her reproductive life plan to ensure that medical testing and treatments provided are aligned with her current and future plans. Obstetrician-gynecologists provide care for women across the lifespan, and periodic well-woman visits are appropriate and necessary for perimenopausal women and postmenopausal women as well. This Committee Opinion has been revised to reflect updated guidance on components of the physical examination and new sources for well-woman preventive services.

Maturitas. 2018 Oct;116:79-82. doi: 10.1016/j.maturitas.2018.07.016. Epub 2018 Jul 31.

Efficacy of intravaginal dehydroepiandrosterone (DHEA) for symptomatic women in the peri- or postmenopausal phase.

Sauer U, Talaulikar V, Davies MC.

OBJECTIVE: There is uncertainty whether treatment with dehydroepiandrosterone (DHEA) decreases menopausal symptoms for women in the peri- or postmenopausal phase. A previous systematic review considering this subject suggested that DHEA may slightly improve sexual function compared with placebo. The purpose of this article is to review recent research investigating whether the use of DHEA, and in particular intravaginal DHEA (Prasterone®), improves sexual function. METHODS: We conducted an online search using Medline OVID for recent articles related to DHEA and menopause. We found 48 relevant publications, out of which 14 papers were original research, all related to the development and licensing of intravaginal DHEA. We critically analysed these 14 articles in relation to sexual function. RESULTS: All the randomised controlled trials assessed the efficacy of vaginal DHEA in women with vulvovaginal atrophy and showed that sexual dysfunction improved with treatment regardless of the level of dyspareunia at baseline. Treatment with DHEA was found to be superior to placebo and at least as efficacious as vaginal oestrogens in improving symptoms. CONCLUSION: Intravaginal DHEA appears to be a safe and effective treatment for menopausal vulvovaginal atrophy and dyspareunia in most women. Further studies are required before it can be recommended for women with a history of thrombosis, cardiovascular disease or hormone-sensitive neoplasms.

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The risk of subsequent osteoporotic fractures is decreased in subjects experiencing fracture while on denosumab: results from the FREEDOM and FREEDOM Extension studies.

Kendler DL, Chines A, Brandi ML, Papapoulos S, Lewiecki EM, Reginster JY, Muñoz Torres M, et al.

This post-hoc analysis queried whether women experiencing fracture on denosumab indicates inadequate treatment response or whether the risk of subsequent fracture remains low with continuing denosumab. Results showed that denosumab decreases the risk of subsequent fracture and fracture sustained while on denosumab is not necessarily indicative of inadequate treatment response. INTRODUCTION: This analysis assessed whether a fracture sustained during denosumab therapy indicates inadequate treatment response and if the risk of a subsequent fracture decreases with continuing denosumab treatment. METHODS: In FREEDOM, a clinical trial to evaluate the efficacy and safety of denosumab, postmenopausal women with osteoporosis were randomized to placebo or denosumab for 3 years. In the 7-year FREEDOM Extension, all participants were allocated to receive denosumab. Here we compare subsequent osteoporotic fracture rates between denosumab-treated subjects during FREEDOM or the Extension and placebo-treated subjects in FREEDOM. RESULTS: During FREEDOM, 438 placebo- and 272 denosumab-treated subjects had an osteoporotic fracture. Exposure-adjusted subject incidence per 100 subject-years was lower for denosumab (6.7) vs placebo (10.1). Combining all subjects on denosumab from FREEDOM and the Extension for up to 10 years (combined denosumab), 794 (13.7%) had an osteoporotic fracture while on denosumab. Of these, one or more subsequent fractures occurred in 144 (18.1%) subjects, with an exposure-adjusted incidence of 5.8 per 100 subject-years, similar to FREEDOM denosumab (6.7 per 100 subject-years) and lower than FREEDOM placebo (10.1 per 100 subject-years). Adjusting for prior fracture, the risk of having a subsequent on-study osteoporotic fracture was lower in the combined denosumab group vs placebo (hazard ratio [95% CI]: 0.59 [0.43-0.81]; P = 0.0012). CONCLUSIONS: These data demonstrate that denosumab decreases the risk of subsequent fracture and a fracture sustained while on denosumab is not necessarily indicative of inadequate treatment response.