Selección de Resúmenes de Menopausia

Semana del 23 al 29 de noviembre, 2016

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Osteoporos Int. 2016 Nov 25. [Epub ahead of print]

Efficacy of statins for osteoporosis: a systematic review and meta-analysis.

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The efficacy of statins for the treatment of osteoporosis has been controversial in previous studies and meta-analyses. Our meta-analysis was conducted to examine in detail the efficacy of statins on osteoporosis. We searched PubMed, Embase, and the Cochrane Library databases for clinical trials from inception to May 2016. We included studies that described the effect of statins on the risk of fracture, BMD, or bone turnover markers. Moreover, we also conducted subgroup analyses according to the skeleton site, patient gender, and length of follow-up. A total of 33 studies which included 23 observational studies (16 cohort studies and 7 case-control studies) and 10 randomized controlled trials (RCTs) were evaluated. These 33 studies included 314,473 patients in statin group and 1,349,192 patients in control group. Statins decreased the risk of overall fractures (OR = 0.81, 95% CI 0.73-0.89) and hip fractures (OR = 0.75, 95% CI 0.60-0.92). Furthermore, the use of statins was associated with increased BMD at the total hip (standardized mean difference (SMD) = 0.18, 95% CI 0.00-0.36) and lumbar spine (SMD = 0.20, 95% CI 0.07-0.32) and improved the bone formation marker, osteocalcin (OC) (SMD = 0.21, 95% CI 0.00-0.42). However, there was no positive effect on vertebral fractures, upper extremity fractures, BMD at the femoral neck, bone-specific alkaline phosphatase (BALP), and serum C-terminal peptide of type I collagen (S-CTX). Also, compared with male subgroups, the effect on female subgroups was only slightly positive or of no statistical significance. Our meta-analysis indicates that statin treatment may be associated with a decreased risk of overall fractures and hip fractures, an increased BMD at the total hip, BMD at the lumbar spine, and OC. Moreover, our results also show that statin treatment may have a greater effect on male patients than on female patients.

J Cell Physiol. 2016 Nov 25. doi: 10.1002/jcp.25701. [Epub ahead of print]

Supernatants of Adipocytes from Obese vs Normal Weight Women and Breast Cancer Cells: In Vitro Impact on Angiogenesis.

Bougaret L, Delort L, Billard H, Lequeux C, Goncalves-Mendes N, Mojallal A, Damour O, Vasson MP, et al.

Breast cancer is correlated with a higher risk of metastasis in obese postmenopausal women. Adipokines, whose plasma concentrations are modulated in obese subjects, surrounds mammary cells, suggesting that adipocyte secretions affect mammary tumorogenesis. We hypothsesis that matures adipocytes secretions from obese women conditioned or not by breast neoplasic cells, increase changes on the stages of angiogenesis. Supernatants of human matures adipocytes differentiated from stem cells of either adipose tissue of normal weight (MA20) or obese (MA30) women or obtained from co-cultures between MA20 or MA30 and breast cancer cell line MCF-7 were collected. The impact of these supernatants was investigated on proliferation, migration and tubes formation by endothelial cells (HUVEC). MA20 and MA30 showed a preservation of their "metabolic memory" (increase of Leptin, ObR, VEGF, CYP19A1 and decrease of Adiponectin expressions in MA30 compared to MA20). Supernatant from obese-adipocytes increased HUVEC proliferation, migration and sprouting like with supernatant obtained from co-cultures of MA/MCF-7 regardless the women's BMI. Additional analyses such as the use of neutralizing antibodies, analysis of supernatants (Milliplex®) and variations in gene expression (qRT-PCR), strongly suggest an implication of IL-6 or a synergistic action among adipokines, probably associated with that of VEGF or IL-6. As a conclusion, supernatant from co-cultures of MA30 and MCF-7 cells increase proliferation, migration and sprouting of HUVEC cells. These results provide insights into the interaction between adipocytes and epithelial cancer cells, particularly in case of obesity. The identification of synergistic action of adipokines would therefore be a great interest in developing preventive strategies.

Osteoporos Int. 2016 Nov 24. [Epub ahead of print]

Is osteoporosis a predictor for future sarcopenia or vice versa? Four-year observations between the second and third ROAD study surveys.

Yoshimura N, Muraki S, Oka H, Iidaka T, Kodama R, Kawaguchi H, Nakamura K, Tanaka S, Akune T.

In a 4-year follow-up study that enrolled 1099 subjects aged ≥60 years, sarcopenia prevalence was estimated at 8.2%. Moreover, the presence of osteoporosis was significantly associated with short-term sarcopenia occurrence, but the reciprocal relationship was not observed, suggesting that osteoporosis would increase the risk of osteoporotic fracture and sarcopenia occurrence. INTRODUCTION: The present 4-year follow-up study was performed to clarify the prevalence, incidence, and relationships between sarcopenia (SP) and osteoporosis (OP) in older Japanese men and women. METHODS: We enrolled 1099 participants (aged, ≥60 years; 377 men) from the second survey of the Research on Osteoarthritis/Osteoporosis against Disability (ROAD) study (2008-2010) and followed them up for 4 years. Handgrip strength, gait speed, skeletal muscle mass, and bone mineral density were assessed. SP was defined according to the Asian Working Group for Sarcopenia. OP was defined based on the World Health Organization criteria. RESULTS: SP prevalence was 8.2% (men, 8.5%; women, 8.0%) in the second survey. In those with SP, 57.8% (21.9%; 77.6%) had OP at the lumbar spine L2-4 and/or femoral neck. SP cumulative incidence was 2.0%/year (2.2%/year; 1.9%/year). Multivariate regression analysis revealed that OP was significantly associated with SP occurrence within 4 years (odds ratio, 2.99; 95% confidence interval, 1.46-6.12; $p < 0.01$), but the reciprocal relationship was not significantly observed (2.11; 0.59-7.59; $p = 0.25$). CONCLUSIONS: OP might raise the short-term risk of SP incidence. Therefore, OP would not only increase the risk for osteoporotic fracture but may also increase the risk for SP occurrence.

Pril (Makedon Akad Nauk Umet Odd Med Nauki). 2016 Nov 1;37(2-3):23-32. doi: 10.1515/prilozi-2016-0013.

The Effects of Hormonal Therapy and Exercise on Bone Turnover in Postmenopausal Women: A Randomised Double-Blind Pilot Study.

Honisett SY, Tangalakis K, Wark J, Apostolopoulos V, Stojanovska L.

INTRODUCTION: Hormone replacement therapy (HRT) and walking were investigated independently and in combination, to determine which treatment provided most effect on bone turnover in postmenopausal women. METHODS: Using a randomised double-blind pilot study, 10 subjects received HRT (transdermal estradiol, 50 μg/day and oral MPA 5 mg/day) and 12 received placebo for 20 weeks. Following a baseline period of treatment, both groups undertook a graduated walking regimen, which increased in intensity, duration and frequency parameters from weeks 8-20. Measurements of aerobic capacity, female sex hormones, bone formation markers [osteocalcin (OC) and bone alkaline phosphatase (BAP)] and bone resorption markers [deoxypyridinoline (DPD) and pyridinoline (PYR)] were measured at baseline (T1), week 8 (T2) and week 20 (T3). RESULTS: Age, time of postmenopause, weight or body mass index were no different between each groups. The HRT group had significantly higher estradiol levels compared with the placebo group at T2 and T3. FSH and LH levels were significantly reduced following HRT. DPD and PYR were significantly reduced from baseline levels at T2 and T3 with HRT. No significant changes occurred in OC or BAP levels with either HRT or walking. Walking did not change bone turnover markers in either the HRT or placebo group. CONCLUSION: HRT reduces bone resorption, however, walking alone at the intensity and duration prescribed, or the combination of HRT and walking, provided no additional benefit after menopause. Therefore, HRT, but not walking is an effective treatment in reducing bone turnover in postmenopause women.

Food Nutr Res. 2016 Nov 22;60:32527. doi: 10.3402/fnr.v60.32527. eCollection 2016.

Milk and dairy products: good or bad for human health? An assessment of the totality of scientific evidence.

Thorning TK, Raben A, Tholstrup T, Soedamah-Muthu SS, Givens I, Astrup A.

BACKGROUND: There is scepticism about health effects of dairy products in the public, which is reflected in an increasing intake of plant-based drinks, for example, from soy, rice, almond, or oat. OBJECTIVE: This review aimed to assess the scientific evidence mainly from meta-analyses of observational studies and randomised controlled trials, on dairy intake and risk of obesity, type 2 diabetes, cardiovascular disease, osteoporosis, cancer, and all-cause mortality. RESULTS: The most recent evidence suggested that intake of milk and dairy products was associated with reduced risk of childhood obesity. In adults, intake of dairy products was shown to improve body composition and facilitate weight loss during energy restriction. In addition, intake of milk and dairy products was associated with a neutral or reduced risk of type 2 diabetes and a reduced risk of cardiovascular disease, particularly stroke. Furthermore, the evidence suggested a beneficial effect of milk and dairy intake on bone mineral density but no association with risk of bone fracture. Among cancers, milk and dairy intake was inversely associated with colorectal cancer, bladder cancer, gastric cancer, and breast cancer, and not associated with risk of pancreatic cancer, ovarian cancer, or lung cancer, while the evidence for prostate cancer risk was inconsistent. Finally, consumption of milk and dairy products was not associated with all-cause mortality. Calcium-fortified plant-based drinks have been included as an alternative to dairy products in

the nutrition recommendations in several countries. However, nutritionally, cow's milk and plant-based drinks are completely different foods, and an evidence-based conclusion on the health value of the plant-based drinks requires more studies in humans. CONCLUSION: The totality of available scientific evidence supports that intake of milk and dairy products contribute to meet nutrient recommendations, and may protect against the most prevalent chronic diseases, whereas very few adverse effects have been reported.

Clin Interv Aging. 2016 Nov 14;11:1645-1652. eCollection 2016.

Habitual cocoa intake reduces arterial stiffness in postmenopausal women regardless of intake frequency: a randomized parallel-group study.

Okamoto T, Kobayashi R, Natsume M, Nakazato K.

Arterial stiffness is substantially higher in postmenopausal than in premenopausal women. Daily cocoa intake has been shown to reduce central arterial stiffness in health adults, regardless of age; however, the effect of cocoa-intake frequency on arterial stiffness in postmenopausal women remains unclear. Therefore, the purpose of this study was to investigate the effects of cocoa-intake frequency on arterial stiffness in postmenopausal women. A total of 26 postmenopausal women (mean age ± standard deviation 64±12 years) were randomly assigned to two groups with different cocoa-intake frequencies: one group ingested 17 g of cocoa once daily except on Sundays (every-day group, n=13), and the other ingested 17 g of cocoa twice daily every other day (every-other-day group, n=13). These intake regimens were maintained in both groups for 12 weeks. Carotid-femoral pulse-wave velocity and femoral-ankle pulse-wave velocity were measured in both groups at baseline and again at the end of the 12-week study period. Compared to baseline, both pulse-wave velocities had significantly decreased after the 12-week study period in both groups ($P<0.05$). However, no significant difference in degree of change was observed between the two groups. Although this study did not include a sedentary control group, these results suggest that regardless of frequency, habitual cocoa intake reduces central and peripheral arterial stiffness in postmenopausal women.