Selección de Resúmenes de Menopausia

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Good, Bad, or Ugly: the Biological Roles of Bone Marrow Fat.

Singh L, Tyagi S, Myers D, Duque G.

PURPOSE OF REVIEW: Bone marrow fat expresses mixed characteristics, which could correspond to white, brown, and beige types of fat. Marrow fat could act as either energy storing and adipokine secreting white fat or as a source of energy for hematopoiesis and bone metabolism, thus acting as brown fat. However, there is also a negative interaction between marrow fat and other elements of the bone marrow milieu, which is known as lipotoxicity. In this review, we will describe the good and bad roles of marrow fat in the bone, while focusing on the specific components of the negative effect of marrow fat on bone metabolism. RECENT FINDINGS: Lipotoxicity in the bone is exerted by bone marrow fat through the secretion of adipokines and free fatty acids (FFA) (predominantly palmitate). High levels of FFA found in the bone marrow of aged and osteoporotic bone are associated with decreased osteoblastogenesis and bone formation, decreased hematopoiesis, and increased osteoclastogenesis. In addition, FFA such as palmitate and stearate induce apoptosis and dysfunctional autophagy in the osteoblasts, thus affecting their differentiation and function. Regulation of marrow fat could become a therapeutic target for osteoporosis. Inhibition of the synthesis of FFA by marrow fat could facilitate osteoblastogenesis and bone formation while affecting osteoclastogenesis. However, further studies testing this hypothesis are still required.

PLoS One. 2018 Feb 23;13(2):e0192459. doi: 10.1371/journal.pone.0192459. eCollection 2018.

Animal versus plant protein and adult bone health: A systematic review and meta-analysis from the National Osteoporosis Foundation.

Shams-White MM, Chung M, Fu Z, Insogna KL, Karlsen MC, LeBoff MS, Shapses SA, Sackey J, Shi J, et al.

BACKGROUND: Protein may have both beneficial and detrimental effects on bone health depending on a variety of factors, including protein source. OBJECTIVE: The aim was to conduct a systematic review and meta-analysis evaluating the effects of animal versus plant protein intake on bone mineral density (BMD), bone mineral content (BMC) and select bone biomarkers in healthy adults. METHODS: Searches across five databases were conducted through 10/31/16 for randomized controlled trials (RCTs) and prospective cohort studies in healthy adults that examined the effects of animal versus plant protein intake on 1) total body (TB), total hip (TH), lumbar spine (LS) or femoral neck (FN) BMD or TB BMC for at least one year, or 2) select bone formation and resorption biomarkers for at least six months. Strength of evidence (SOE) was assessed and random effect meta-analyses were performed. RESULTS: Seven RCTs examining animal vs. isoflavone-rich soy (Soy+) protein intake in 633 healthy peri-menopausal (n = 1) and post-menopausal (n = 6) women were included. Overall risk of bias was medium. Limited SOE suggests no significant difference between Soy+ vs. animal protein on LS, TH, FN and TB BMD, TB BMC, and bone turnover markers BSAP and NTX. Meta-analysis results showed on average, the differences between Soy+ and animal protein groups were close to zero and not significant for BMD outcomes (LS: n = 4, pooled net % change: 0.24%, 95% CI: -0.80%, 1.28%; TB: n = 3, -0.24%, 95% CI: -0.81%, 0.33%; FN: n = 3, 0.13%, 95% CI: -0.94%, 1.21%). All meta-analyses had no statistical heterogeneity. CONCLUSIONS: These results do not support soy protein consumption as more advantageous than animal protein, or vice versa. Future studies are needed examining the effects of different protein sources in different populations on BMD, BMC, and fracture.

Bone. 2018 Feb 17. pii: S8756-3282(18)30068-1. doi: 10.1016/j.bone.2018.02.007. [Epub ahead of print]

Use of high-dose intermittent systemic glucocorticoids and the risk of fracture in patients with chronic obstructive pulmonary disease.

Oshagbemi OA, Burden AM, Shudofsky KN, Driessen JHM, Vestergaard P, Krings A, Franssen F, et al.

INTRODUCTION: Chronic obstructive pulmonary disease (COPD) is characterised by persistent airflow obstruction and respiratory symptoms. While short course systemic GCs are prescribed in patients with acute COPD exacerbations, little is known of the risk of fractures with intermittent exposure to high-dose GC and the effect of proxies of disease severity. METHODS: A case-control study was conducted using the Danish National Hospital

Discharge Registry (NHDR) between January 1996 to December 2011. Conditional logistics regression models were used to derive adjusted odds ratios (OR) risk of fractures in subjects with COPD stratified by intermittent high-dose, and proxies of disease severity. RESULT: A total of 635,536 cases and the same number of controls were identified (mean age 67.5 ± 13.8, 65% female). COPD patients with intermittent use of high average daily dose oral glucocorticoids did not have an increased risk of any, osteoporotic, hip or clinically symptomatic vertebral fracture compared to non-COPD patients (adj. OR 0.65; 95% CI: 0.50-0.86, 0.70; 95% CI: 0.70-0.99, 1.17; 95% CI: 0.59-2.32, 1.98; 95% CI: 0.59-6.65 respectively). We identified an elevated risk of osteoporotic fracture among patients who visited the emergency unit (adj. OR 1.47; 95% CI 1.20-1.79) or were hospitalised in the past year for COPD (adj. OR 1.76; 95% CI 1.66-1.85). Current GC use among COPD patients was associated with an increased risk of osteoporotic, hip and clinically symptomatic vertebral fractures compared to patients without COPD. CONCLUSION: Intermittent high-dose GCs was not associated with an increased risk of any, osteoporotic, hip or clinically symptomatic vertebral fractures in patients with COPD. Current GC use was however associated with an increased risk of hip and clinically symptomatic vertebral fractures. Therefore, emphasis on prophylactic treatment of fractures may not be essential in patients with COPD receiving intermittent dose of GCs, whereas this should be considered for high-dose long-term users with advanced COPD disease stage, postmenopausal women and men over 40 years.

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Vasomotor and physical menopausal symptoms are associated with sleep quality.

Kim MJ, Yim G, Park HY.

BACKGROUND: Sleep disturbance is one of the common complaints in menopause. This study investigated the relationship between menopausal symptoms and sleep quality in middle-aged women. METHOD: This cross-sectional observational study involved 634 women aged 44-56 years attending a healthcare center at Kangbuk Samsung Hospitals. Sleep quality was measured using the Pittsburgh Sleep Quality Index (PSQI). Multiple linear regression analysis was performed to assess the associations between Menopause-specific Quality of Life (MENQOL) scores and PSQI scores and Menopause-specific Quality of Life (MENQOL)scores. RESULTS: The mean PSQI score was 3.6±2.3, and the rates of poor sleep quality (PSQI score > 5) in premenopausal, perimenopausal, and postmenopausal women were 14.4%, 18.2%, and 30.2%, respectively. Total PSQI score, specifically the sleep latency, habitual sleep efficiency and sleep disturbances scores, were significantly increased in postmenopausal women. Multiple linear regression analysis adjusted for age, BMI, hypertension, diabetes, smoking, marital status, family income, education, employment status, parity, physical activity, depression symptoms, perceived stress and menopausal status showed that higher PSQI score was positively correlated with higher vasomotor (ß = 0.240, P = 0.020) and physical(ß = 0.572, P<0.001) scores. CONCLUSIONS: Vasomotor and physical menopause symptoms was related to poor sleep quality. Effective management strategies aimed at reducing menopausal symptoms may improve sleep quality among women around the time of menopause.

Menopause. 2018 Feb 16. doi: 10.1097/GME.0000000000001070. [Epub ahead of print]

Patterns of menopausal hormone therapy use and hyperkyphosis in older women.

Woods GN, Huang MH, Cawthon PM, et al; Study of Osteoporotic Fractures (SOF) Research Group.

OBJECTIVE: Hyperkyphosis, an exaggerated anterior curvature of the thoracic spine, is associated with poor physical function, falls, fractures, and earlier mortality. Low bone mineral density, bone loss, and vertebral fractures are strong risk factors for hyperkyphosis. Menopausal hormone therapy (HT) reverses bone loss, prevents vertebral fractures, and, therefore, we hypothesize, may reduce the risk for developing hyperkyphosis. METHODS: We evaluated the cross-sectional association between Cobb angle of kyphosis from lateral spine radiographs and pattern of self-reported HT use during the prior 15-year period in 1,063 women from the Study of Osteoporotic Fractures. RESULTS: Participants had a mean age of 83.7±3.3 years and a mean Cobb angle of 51.3±14.6°. Forty-six per cent of women were characterized as never-users of HT, 24% as remote past users, 17% as intermittent users, and 12% as continuous users. In minimally adjusted models, the mean Cobb angle was 4.0° less in continuous HT users compared with never-users (P=0.01); however, in fully adjusted models, this association was attenuated to 2.8° (P=0.06). Remote past HT users had 3.0° less kyphosis compared with never-users in minimally adjusted models (P=0.01), attenuated to 2.8° less in fully adjusted models (P=0.02). Intermittent users did not differ from never-users in degree of kyphosis.

CONCLUSIONS: Women reporting continuous or remote past HT use had less pronounced kyphosis than never-users by their mid-eighties, suggesting a possible role for HT in the prevention of age-related hyperkyphosis.

Eur J Epidemiol. 2018 Feb 19. doi: 10.1007/s10654-018-0367-y. [Epub ahead of print]

Body mass index and age at natural menopause: an international pooled analysis of 11 prospective studies.

Zhu D, Chung HF, Pandeya N, Dobson AJ, Kuh D, Crawford SL, Gold EB, Avis NE, Giles GG, Bruinsma F, et al.

Current evidence on the association between body mass index (BMI) and age at menopause remains unclear. We investigated the relationship between BMI and age at menopause using data from 11 prospective studies. A total of 24,196 women who experienced menopause after recruitment was included. Baseline BMI was categorised according to the WHO criteria. Age at menopause, confirmed by natural cessation of menses for ≥ 12 months, was categorised as < 45 years (early menopause), 45-49, 50-51 (reference category), 52-53, 54-55, and ≥ 56 years (late age at menopause). We used multinomial logistic regression models to estimate multivariable relative risk ratios (RRRs) and 95% confidence intervals (CI) for the associations between BMI and age at menopause. The mean (standard deviation) age at menopause was 51.4 (3.3) years, with 2.5% of the women having early and 8.1% late menopause. Compared with those with normal BMI (18.5-24.9 kg/m2), underweight women were at a higher risk of early menopause (RRR 2.15, 95% CI 1.50-3.06), while overweight (1.52, 1.31-1.77) and obese women (1.54, 1.18-2.01) were at increased risk of late menopause. Overweight and obesity were also significantly associated with around 20% increased risk of menopause at ages 52-53 and 54-55 years. We observed no association between underweight and late menopause. The risk of early menopause was higher among obese women albeit not significant (1.23, 0.89-1.71). Underweight women had over twice the risk of experiencing early menopause, while overweight and obese women had over 50% higher risk of experiencing late menopause.

Breast Care (Basel). 2017 Dec;12(6):379-384. doi: 10.1159/000485830. Epub 2017 Dec 13.

Prophylactic Surgery: For Whom, When and How?

Mau C, Untch M.

Risk-reducing surgery has proved to be a reasonable procedure in healthy women with a definitely elevated risk of developing cancer. Here we consider the elevated risk of breast and ovarian cancer. There is a clear indication for such surgery in healthy women with a pathogenic BRCA1/2 mutation. For these patients, a risk-reducing bilateral mastectomy leads to a verifiable reduction in mortality from breast cancer, particularly for young patients. In most cases, surgery is combined with breast reconstruction. The pros and cons of surgical treatment and the different surgical techniques have to be explained to and carefully considered with the patient. As yet, no unequivocal data for the benefits of intensifying early detection have been ascertained with respect to mortality from breast carcinoma. In index patients with a BRCA mutation, the surgical treatment should depend on the prognosis of the primary disease. A lower age at onset and a better prognosis of the primary disease make a contralateral mastectomy (CPM) more reasonable. In the case of BRCA mutation-related cancer, a reduction of mortality through CPM has been proven. A risk-reducing adnexectomy is basically recommended for BRCA mutation carriers. Healthy premenopausal women need a subsequent hormone replacement therapy. The prognosis of the patients is dominated by the ovarian carcinoma. This can be prevented by risk-reducing salpingo-oophorectomy in 95% of the cases.

Maturitas. 2018 Mar;109:13-25. doi: 10.1016/j.maturitas.2017.12.005. Epub 2017 Dec 6.

Yoga for menopausal symptoms-A systematic review and meta-analysis.

Cramer H, Peng W, Lauche R.

OBJECTIVES: To systematically review and meta-analyze the effectiveness of yoga for menopausal symptoms. METHODS: Medline (via PubMed), the Cochrane Central Register of Controlled Trials, and Scopus were screened through to February 21, 2017 for randomized controlled trials (RCTs) comparing the effects of yoga on menopausal symptoms to those of no treatment or active comparators. Standardized mean differences (SMD) and 95% confidence intervals (CI) were calculated. Two authors independently assessed risk of bias using the Cochrane risk of bias tool. RESULTS: Thirteen RCTs with 1306 participants were included. Compared with no treatment, yoga reduced total menopausal symptoms (SMD=-1.05; 95% CI -1.57 to -0.53), psychological (SMD=-0.75; 95% CI -1.17 to -0.34), somatic (SMD=-0.65; 95% CI -1.05 to -0.25), vasomotor (SMD=-0.76; 95% CI -1.27 to -0.25), and urogenital symptoms (SMD=-0.53; 95% CI -0.81 to -0.25). Compared with exercise controls, only an effect on vasomotor

symptoms was found (SMD=-0.45; 95% CI -0.87 to -0.04). Effects were robust against selection bias, but not against detection and attrition bias. No serious adverse events were reported. CONCLUSION: Yoga seems to be effective and safe for reducing menopausal symptoms. Effects are comparable to those of other exercise interventions.