Selección de Resúmenes de Menopausia

Semana del 25 de abril al 1 de mayo de 2018

María Soledad Vallejo. Clínica Quilín. Universidad de Chile

Osteoporos Int. 2018 Apr 27. doi: 10.1007/s00198-018-4524-7. [Epub ahead of print]

The relation of low levels of bone mineral density with coronary artery calcium and mortality.

Ahmadi N, Mao SS, Hajsadeghi F, Arnold B, Kiramijyan S, Gao Y, Flores F, Azen S, Budoff M.

Osteoporosis and atherosclerosis are two prevalent major healthcare concerns that frequently coexist. The clinical outcome of 5590 consecutive subjects who underwent coronary artery calcium (CAC) scanning and thoracic bone mineral density (BMD) measurement was assessed. A significant link between low BMD levels and CAC with increased risk of mortality in both genders across ethnicities noted. INTRODUCTION: While a relation of CAC with lower levels of BMD reported previously; it is unclear whether low levels of BMD would be an independent risk factor for CAC and mortality. This study investigated the relation of BMD levels with CAC and mortality in both genders across ethnicities. METHODS: This study consisted of 5590 consecutive at-risk subjects without known coronary artery disease (CAD), age 57 ± 12, and 69% male, who underwent non-enhanced cardiac computed tomography, and were followed for mean of 8 years. The subjects' CAC (Agatston score) and thoracic BMD levels (mg/cm3) were measured. CAC stratified based on the severity to CAC 0, 1-100, 101-400, and 400+. Low-BMD levels defined as BMD levels below median (180 mg/cm3). Physician verified that all-cause mortality was assessment hard-endpoint. Multivariate regression analysis, adjusted for age, gender, and other cardiovascular risk factors, was used to assess the relationship between BMD and CAC. RESULTS: The BMD levels were proportionally lowering with the severity of CAC in both genders, especially in postmenopausal women ($p < 0.05$). The risk of each standard deviation reduces in BMD levels increased with the severity of CAC, as compared to CAC = 0 across ethnicities ($p < 0.05$). Low BMD levels were an independent predictor of mortality and event-free survival rate decreased from 99% in those within normal BMD levels to 93% in those with low BMD levels ($p = 0.0001$). Furthermore, a significant link between low BMD levels and CAC > 0 with increased risk of mortality was noted ($p = 0.0001$). The relative risk of death was 2.8, 5.9, and 14.3-folds higher in CAC 1-100, 101-400, and 400+ with low BMD levels, compared to CAC = 0 and within normal BMD levels, respectively ($p < 0.05$). CONCLUSIONS: The lower BMD levels are independently associated with the severity of CAC that predicts mortality.

J Gerontol A Biol Sci Med Sci. 2018 Apr 24. doi: 10.1093/gerona/gly092. [Epub ahead of print]

Frailty is inversely related to age at menopause and elevated in women who have had a hysterectomy: an analysis of the Canadian Longitudinal Study on Aging.

Verschoor CP, Tamim H.

Background: Frailty is a complex pathophysiological phenomenon that will impact a significant proportion of adults over the age of 65 and contributes to the risk of several adverse health outcomes. Although women have a disproportionately higher risk of frailty, the sex-specific factors related to this syndrome are not well-described. Hence, we sought to examine the relationship of age at menopause, hysterectomy status and hormone replacement therapy (HRT) use with prevalent frailty in older women. Methods: We performed a cross-sectional analysis of the Canadian Longitudinal Study on Aging (CLSA) Baseline Comprehensive cohort (n=30 097, 45-85 years old). Frailty was operationalized using both the deficit accumulation (frailty index) and frailty phenotype (Fried) models. Post-menopausal women were categorized as: premature (30-39 years old), early (40-45 yrs), normal (46-54 yrs) and late (55+) menopause, or hysterectomy. Associations were determined using multivariate analysis, adjusting for sociodemographics, lifestyle factors, social support and HRT use. Results: Age at menopause was inversely related to frailty in older Canadian women. The frailty index decreased 1.2% of the mean ($p<0.001$) with every year of menopause onset, and was significantly higher for women in the premature (24%; $p<0.001$) and early (8%; $p<0.01$) menopause and hysterectomy (21%; $p<0.001$) groups, compared to the normal menopause group. The odds for being classified as frail using Fried's criteria was higher for the premature menopause (OR=1.45, 95%CI=0.75-2.81) and

hysterectomy (OR=1.48, 95%CI=1.11-1.99) groups. Conclusions: Our study supports a role for age at menopause and hysterectomy in the risk of frailty in older women, and warrants further investigation.

Obesity (Silver Spring). 2018 May;26(5):854-861. doi: 10.1002/oby.22169.

Effect of Protein Supplementation During Diet-Induced Weight Loss on Muscle Mass and Strength: A Randomized Controlled Study.

Smith GI, Commean PK, Reeds DN, Klein S, Mittendorfer B.

OBJECTIVE: High protein (particularly leucine-rich whey protein) intake is recommended to mitigate the adverse effect of weight loss on muscle mass. The effectiveness of this approach is unknown. METHODS: Seventy middle-aged (50-65 years old) postmenopausal women with obesity were randomized to (1) weight maintenance (WM), (2) weight loss and the recommended daily allowance for protein (0.8 g/kg/d) (WL group), or (3) weight loss plus whey protein supplementation (total protein: 1.2 g/kg/d) (WL-PS group). Thigh muscle volume and strength were assessed at baseline and after 5% and 10% weight loss in the weight-loss groups and after matched time periods (~3 and 6 months, respectively) in the WM group. RESULTS: A 5% weight loss caused a greater decrease in thigh muscle volume in the WL group than the WL-PS group (4.7% ± 0.7% vs. 2.8% ± 0.8%, respectively; $P < 0.05$). After 10% weight loss, there was no statistically significant difference in muscle mass loss in the two groups, and the total loss was small in both groups (5.5% ± 0.8% and 4.5% ± 0.7%, respectively). The dietary interventions did not affect muscle strength. CONCLUSIONS: Whey protein supplementation during diet-induced weight loss does not have clinically important therapeutic effects on muscle mass or strength in middle-aged postmenopausal women with obesity.

Arch Gerontol Geriatr. 2018 Apr 17;77:64-67. doi: 10.1016/j.archger.2018.04.008. [Epub ahead of print]

Continuously declining incidence of hip fracture in Finland: Analysis of nationwide database in 1970-2016.

Kannus P1, Niemi S, Parkkari J, Sievänen H.

BACKGROUND: Hip fractures of older adults are a major public health issue. METHODS: We determined the current trend in the number and incidence (per 100,000 persons) of hip fracture among older adults in Finland by taking into account all persons 50 years of age or older who were admitted to hospitals for primary treatment of such fracture between 1970 and 2016. RESULTS: The number of hip fractures rose sharply till the end of 1990s (from 1857 in 1970 to 7122 in 1997), but since then, the rise has slowed down (7716 fractures in 2016). Similarly, the age-adjusted incidence of hip fracture increased until 1997 but declined thereafter. The decline was especially clear in women whose age-adjusted incidence was 537.9 (per 100,000 persons) in 1997 but only 344.1 in 2016. In men, the corresponding incidence was 256.5 in 1997 and 194.7 in 2016. With the current 2016 incidence rates, the number of hip fractures in Finland will increase by 44% by the year 2030 due to the sharp growth of the population at risk. The only way to limit the rise is to have a further decline in fracture incidence in 2016-2030. CONCLUSIONS: The decline in the incidence of hip fracture in Finland has continued through the entire new millennium. Despite this we have to effectively continue implementation of the fracture prevention efforts, because our elderly population will grow rapidly in the near future.

Obstet Gynecol. 2018 May;131(5):945-946. doi: 10.1097/AOG.0000000000002626.

ACOG Committee Opinion No. 734 Summary: The Role of Transvaginal Ultrasonography in Evaluating the Endometrium of Women With Postmenopausal Bleeding.

[No authors listed]

Cancer of the endometrium is the most common type of gynecologic cancer in the United States. Vaginal bleeding is the presenting sign in more than 90% of postmenopausal women with endometrial carcinoma. Clinical risk factors for endometrial cancer, including but not limited to age, obesity, use of unopposed estrogen, specific medical comorbidities (eg, polycystic ovary syndrome, type 2 diabetes mellitus, atypical glandular cells on screening cervical cytology), and family history of gynecologic malignancy also should be considered when evaluating postmenopausal bleeding. The clinical approach to postmenopausal bleeding requires prompt and efficient evaluation to exclude or diagnose endometrial carcinoma and endometrial intraepithelial neoplasia. Transvaginal ultrasonography usually is

sufficient for an initial evaluation of postmenopausal bleeding if the ultrasound images reveal a thin endometrial echo (less than or equal to 4 mm), given that an endometrial thickness of 4 mm or less has a greater than 99% negative predictive value for endometrial cancer. Transvaginal ultrasonography is a reasonable alternative to endometrial sampling as a first approach in evaluating a postmenopausal woman with an initial episode of bleeding. If blind sampling does not reveal endometrial hyperplasia or malignancy, further testing, such as hysteroscopy with dilation and curettage, is warranted in the evaluation of women with persistent or recurrent bleeding. An endometrial measurement greater than 4 mm that is incidentally discovered in a postmenopausal patient without bleeding need not routinely trigger evaluation, although an individualized assessment based on patient characteristics and risk factors is appropriate. Transvaginal ultrasonography is not an appropriate screening tool for endometrial cancer in postmenopausal women without bleeding.

J Nutr Biochem. 2018 Mar 20;57:93-102. doi: 10.1016/j.jnutbio.2018.03.011. [Epub ahead of print]

Loss of ovarian function in association with a high-fat diet promotes insulin resistance and disturbs adipose tissue immune homeostasis.

Pae M, Baek Y, Lee S, Wu D.

Loss of ovarian function, as occurs in menopause or after ovariectomy (OVX), is associated with insulin resistance. Adipose tissue inflammation is suggested to be a key component of obesity-induced insulin resistance in male rodents. However, little is known about the effect of OVX and diet on insulin resistance in association with immune homeostasis. Thus, we conducted this study to determine how high-fat diet (HFD) and OVX, alone or in combination, impacted adipose tissue inflammation and insulin resistance. Nine-week-old sham and OVX-treated C57Bl/6 mice were fed low-fat diet (LFD) or HFD (60%) up to 16 weeks. Glucose metabolism was assessed, and adipose tissue and spleen were characterized for tissue inflammation and immune cell populations. First, we found that HFD induced glucose intolerance in both OVX mice and, to a lesser extent, sham mice. OVX mice fed LFD showed no difference in glucose intolerance compared to sham mice. Additionally, OVX mice only when exposed to HFD displayed a proinflammatory profile in adipose tissue: increased macrophages together with dominant M1-like phenotype and also increased T cells, B cells and NK cells compared to those with intact ovarian function. Together, our findings indicate that loss of ovarian function coupled with an HFD intake promotes insulin resistance and adipose tissue inflammation by disturbing adipose tissue immune homeostasis. These findings have a clinical implication in the dietary guidance for menopausal women.

J Steroid Biochem Mol Biol. 2018 Apr 19. pii: S0960-0760(18)30132-8. doi: 10.1016/j.jsbmb.2018.04.005. [Epub ahead of print]

Serum 25-hydroxyvitamin D and breast cancer risk by pathological subtype (MCC-Spain).

Lope V, Castelló A, Mena-Bravo A, Amiano P, Aragonés N, Fernández-Villa T, Guevara M, Dierssen-Sotos T, Fernandez-Tardón G, Castaño-Vinyals G, Marcos-Gragera R, Moreno V, Salas-Trejo D, Diaz-Santos M, Oribe M, Romieu I1, Kogevinas M, Priego-Capote F, Pérez-Gómez B, Pollán M.

Epidemiologic evidence on the association between vitamin D and breast cancer is still inconclusive. This study analyzes the association between serum 25-hydroxyvitamin D (25(OH)D) and breast cancer risk by pathologic subtype, stage at diagnosis and specific breast cancer risk factors. We conducted a population-based multicase-control study where 546 histologically-confirmed breast cancer cases and 558 population controls, frequently matched by geographic area, age and body mass index, were recruited in 12 Spanish provinces (MCC-Spain). Information was collected by a questionnaire and plasma 25(OH)D was measured by solid-phase extraction on-line coupled to liquid chromatography-tandem mass spectrometry (SPE-LC-MS/MS). Odds ratios and 95% confidence intervals were calculated using logistic and multinomial mixed regression models. We found a clear protective effect between 25(OH)D levels and breast cancer risk, with a significant dose-response trend (OR per 10 nmol/L = 0.88; 95%CI = 0.82-0.94). While no differences were observed between pre and postmenopausal women, stage at diagnosis, or across strata of the main breast cancer risk factors, the protection was more pronounced for triple negative tumors (OR per 10 nmol/L = 0.64; p-heterogeneity = 0.038). Similar results were observed when only cases sampled in the first month after diagnosis were considered. The protective effect of vitamin D on breast cancer risk may be subtype specific, being stronger for more aggressive tumors, which provides a new approach to prevent this disease.