Selección de Resúmenes de Menopausia

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Serum 25-hydroxyvitamin D cutoffs for functional bone measures in postmenopausal osteoporosis.

Lee DY, Jee JH, Cho YY, Jang JY, Yu TY, Kim TH, Hong YJ, Hong WJ, Jin SM, Hur KY, Kim JH, et al.

INTRODUCTION: There is no consensus on the minimal serum 25-hydroxyvitamin D [25(OH)D] concentration required to maintain bone health. The aim of this study was to investigate the relationship between 25(OH)D measured via liquid chromatography-mass spectrometry (LC-MS/MS), which is the current gold standard, and biochemical markers of bone turnover, PTH, and bone mineral densitometry (BMD). METHODS: The medical records of 750 postmenopausal women newly diagnosed with osteoporosis or osteopenia at Samsung Medical Center from 2009 to 2014 were investigated. Subjects were divided into four groups according to serum 25(OH)D concentration: <10, 10-20, 20-30, and ≥30 ng/mL. Serum concentrations of bone-specific alkaline phosphatase (BS-ALP), carboxy-terminal cross-linking telopeptide of type 1 collagen (CTx), intact PTH (iPTH), and BMD were compared among the four groups using analysis of covariance. Thresholds of 25(OH)D were then assessed using spline plots and locally weighted regression smoothing (LOESS) plots. RESULTS: 25(OH)D was negatively correlated with serum BS-ALP, CTx, and iPTH. Only femur neck and total femur BMD had significant positive relationships with 25(OH)D. Cutoff values of 11.9 and 9.7 ng/mL were estimated from the spline plots of femur neck and total femur BMD, respectively. For iPTH, the LOESS plot showed a steep decrease to a serum 25(OH)D concentration of about 20 ng/mL, followed by a plateau.

CONCLUSIONS: According to this study, a serum 25(OH)D concentration of 20 ng/mL, rather than 30 ng/mL, was appropriate for bone health.

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Spine fracture prevalence in a nationally representative sample of US women and men aged ≥40 years: results from the National Health and Nutrition Examination Survey (NHANES) 2013-2014.

Cosman F, Krege JH, Looker AC, Schousboe JT, Fan B, Sarafrazi Isfahani N, Shepherd JA, Krohn KD, et al.

Spine fracture prevalence is similar in men and women, increasing from <5 % in those <60 to 11 % in those 70-79 and 18 % in those ≥80 years. Prevalence was higher with age, lower bone mineral density (BMD), and in those meeting criteria for spine imaging. Most subjects with spine fractures were unaware of them. INTRODUCTION: Spine fractures have substantial medical significance but are seldom recognized. This study collected contemporary nationally representative spine fracture prevalence data. METHODS: Cross-sectional analysis of 3330 US adults aged ≥40 years participating in NHANES 2013-2014 with evaluable Vertebral Fracture Assessment (VFA). VFA was graded by semiquantitative measurement. BMD and an osteoporosis questionnaire were collected. RESULTS: Overall spine fracture prevalence was 5.4 % and similar in men and women. Prevalence increased with age from <5 % in those <60 to 11 % in those 70-79 and 18 % in those ≥80 years. Fractures were more common in non-Hispanic whites and in people with lower body mass index and BMD. Among subjects with spine fracture, 26 % met BMD criteria for osteoporosis. Prevalence was higher in subjects who met National Osteoporosis Foundation (NOF) criteria for spine imaging (14 vs 4.7 %, P < 0.001). Only 8 % of people with a spine fracture diagnosed by VFA had a self-reported fracture, and among those who self-reported a spine fracture, only 21 % were diagnosed with fracture by VFA. CONCLUSION: Spine fracture prevalence is similar in women and men and increases with age and lower BMD, although most subjects with spine fracture do not meet BMD criteria for osteoporosis. Since most (>90 %) individuals were unaware of their spine fractures, lateral spine imaging is needed to identify these women and men. Spine fracture prevalence was threefold higher in individuals meeting NOF criteria for spine imaging (~1 in 7 undergoing VFA). Identifying spine fractures as part of comprehensive risk assessment may improve clinical decision making.

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Marrow adipocytes inhibit the differentiation of mesenchymal stem cells into osteoblasts via suppressing BMP-signaling.

Abdallah BM.

BACKGROUND: Reduced bone formation is associated with increased bone marrow fat in many bone-loss related diseases including aging, post-menopause, and anorexia nervosa. Several lines of evidence suggested the regulation of osteogenesis and adipogenesis of the bone marrow-derived mesenchymal (skeletal) stem cells (BMSCs) by paracrine mediators. This study aimed to investigate the impact of adipocytes-secreted factors on the cell proliferation and osteoblast differentiation of BMSCs. METHODS: Serum free conditioned medium (CM-Adipo) was collected from stromal ST2 cells-derived adipocytes. Cell viability, quantitative alkaline phosphatase (ALP) activity assay, Alizarin red staining for matrix mineralization and osteogenic gene array expression were performed to determine the effect of CM-Adipo on cell proliferation and osteoblast differentiation of primary murine BMSCs (mBMSCs). Regulation of BMPs and NF-κB signaling pathways by CM-Adipo were detected by Western blot analysis and gene reporter assay. RESULTS: CM-Adipo showed no effect on cell viability/proliferation of primary mBMSCs as compared to CM-control. On the other hand, CM-Adipo significantly inhibited the commitment of mBMSCs into osteoblastic cell lineage in dose-dependent manner. CM-Adipo was found to dramatically inhibit the BMP2-induced osteoblast differentiation and to activate the inflammatory NF-κB signaling in mBMSCs. Interestingly, treatment of mBMSCs with the selective inhibitor of NF-κB pathway, BAY11-770682, showed to retrieve the inhibitory effect of CM-Adipo on BMP2-induced osteoblast differentiation in mBMSCs. CONCLUSIONS: Our data demonstrated that the marrow adipocytes exert paracrine inhibitory effect on the osteoblast differentiation of mBMSCs by blocking BMPs signaling in a mechanism mediated by adipokines-induced NF-κB pathway activation.

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Cardiac autonomic function and hot flashes among perimenopausal and postmenopausal women.

Gibson CJ, Mendes WB, Schembri M, Grady D, Huang AJ.

OBJECTIVE: Abnormalities in autonomic function are posited to play a pathophysiologic role in menopausal hot flashes. We examined relationships between resting cardiac autonomic activity and hot flashes in perimenopausal and postmenopausal women. METHODS: Autonomic function was assessed at baseline and 12 weeks among perimenopausal and postmenopausal women (n=121, mean age 53 years) in a randomized trial of slow-paced respiration for hot flashes. Pre-ejection period (PEP), a marker of sympathetic activation, was measured with impedance cardiography. Respiratory sinus arrhythmia (RSA), a marker of parasympathetic activation, was measured with electrocardiography. Participants self-reported hot flash frequency and severity in 7-day symptom diaries. Analysis of covariance models were used to relate autonomic function and hot flash frequency and severity at baseline, and to relate changes in autonomic function to changes in hot flash frequency and severity over 12 weeks, adjusting for age, body mass index, and intervention assignment. RESULTS: PEP was not associated with hot flash frequency or severity at baseline or over 12 weeks ($P>0.05$ for all). In contrast, there was a trend toward greater frequency of moderate-to-severe hot flashes with higher RSA at baseline ($\beta=0.43$, $P=0.06$), and a positive association between change in RSA and change in frequency of moderate-to-severe hot flashes over 12 weeks ($\beta=0.63$, $P=0.04$). CONCLUSIONS: Among perimenopausal and postmenopausal women with hot flashes, variations in hot flash frequency and severity were not explained by variations in resting sympathetic activation. Greater parasympathetic activation was associated with more frequent moderate-to-severe hot flashes, which may reflect increased sensitivity to perceiving hot flashes.

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Intentional Weight Loss and Endometrial Cancer Risk.

Luo J, Chlebowski RT, Hendryx M, Rohan T, Wactawski-Wende J, Thomson CA, Felix AS, Chen C, et al.

Purpose Although obesity is an established endometrial cancer risk factor, information about the influence of weight loss on endometrial cancer risk in postmenopausal women is limited. Therefore, we evaluated associations among weight change by intentionality with endometrial cancer in the Women's Health Initiative (WHI) observational study. Patients and Methods Postmenopausal women (N = 36,794) ages 50 to 79 years at WHI enrollment had their body

weights measured and body mass indices calculated at baseline and at year 3. Weight change during that period was categorized as follows: stable (change within ± 5%), loss (change ≥ 5%), and gain (change ≥ 5%). Weight loss intentionality was assessed via self-report at year 3; change was characterized as intentional or unintentional. During the subsequent 11.4 years (mean) of follow-up, 566 incident endometrial cancer occurrences were confirmed by medical record review. Multivariable Cox proportional hazards regression models were used to evaluate relationships (hazard ratios [HRs] and 95% CIs) between weight change and endometrial cancer incidence. Results In multivariable analyses, compared with women who had stable weight (± 5%), women with weight loss had a significantly lower endometrial cancer risk (HR, 0.71; 95% CI, 0.54 to 0.95). The association was strongest among obese women with intentional weight loss (HR, 0.44; 95% CI, 0.25 to 0.78). Weight gain (≥ 10 pounds) was associated with a higher endometrial cancer risk than was stable weight, especially among women who had never used hormones. Conclusion Intentional weight loss in postmenopausal women is associated with a lower endometrial cancer risk, especially among women with obesity. These findings should motivate programs for weight loss in obese postmenopausal women.

Ind Psychiatry J. 2016 Jan-Jun;25(1):86-92. doi: 10.4103/0972-6748.196056.

Psychiatric morbidity in perimenopausal women.

Jagtap BL, Prasad BS, Chaudhury S.

BACKGROUND: Women in the perimenopausal period are reported to be vulnerable to psychiatric disorders. AIM: To assess the psychiatric morbidity in perimenopausal women aged 45-55 years. MATERIALS AND METHODS: This cross-sectional, observational, hospital-based study was conducted at the Department of Psychiatry in a tertiary care hospital attached to a medical college. The study sample consisted of consecutive women in perimenopause as diagnosed by a gynecologist and written informed consent for inclusion in the study. Women with a previous history of psychiatric illnesses, with a major medical illness, or who had undergone surgical menopause were excluded from the study. All women were evaluated with a brief questionnaire for collecting demographic and clinical information and the Mini International Neuropsychiatric Interview for assessing psychiatric disorders. RESULTS: Of the 108 women in perimenopause included in the study, 31% had depressive disorder, 7% had anxiety, while 5% had depressive disorder with anxiety features. Psychiatric morbidity was significantly more in women having lesser education, from rural background, with a history of psychiatric illness in the family, a later age of menarche, and in the late stage of perimenopause. CONCLUSIONS: Women in the perimenopause affected by psychiatric morbidity were most commonly diagnosed with depression. As perimenopause is a time of vulnerability in women, attention to signs and symptoms of depression may be required so that they may lead a more productive life.

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Association between low lean mass and low bone mineral density in 653 women with hip fracture: does the definition of low lean mass matter?

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BACKGROUND AND AIMS: Loss of both muscle and bone mass results in fragility fractures with increased risk of disability, poor quality of life, and death. Our aim was to assess the association between low appendicular lean mass (aLM) defined according to different criteria and low bone mineral density (BMD) in hip-fracture women. METHODS: Six hundred fifty-three women admitted to our rehabilitation hospital underwent dual energy X-ray absorptiometry 19.1 ± 4.1 (mean ± SD) days after hip-fracture occurrence. Low aLM was identified according to either Baumgartner's definition (aLM/height2 less than two standard deviations below the mean of the young reference group) or FNIH criteria: aLM <15.02 kg, or aLM adjusted for body mass index (BMI) <0.512. Low BMD was diagnosed with a T-score <-2.5 at the unfractured femoral neck. RESULTS: Using Baumgartner's definition, the association between low aLM/height2 and low BMD was significant: χ 2(1, n = 653) = 8.52 (p = 0.004), but it was erased by adjustments for age and fat mass. Using the FNIH definition the association between low aLM and low BMD was significant: χ 2(1, n = 653) = 42.5 (p < 0.001), and it was confirmed after adjustment for age and fat mass (p < 0.001). With the FNIH definition based on aLM/BMI ratio the association between low aLM/BMI ratio and low BMD was nonsignificant: χ 2(1, n = 653) = 0.003 (p = 0.957). CONCLUSIONS: The association between low aLM and low BMD in women with hip fracture dramatically depends on the adopted definition of low aLM. FNIH threshold for aLM (<15.02 kg) emerges as a useful tool to capture women with damage of the muscle-bone unit.