



## Selección de Resúmenes de Menopausia

Semana del 26 de julio al 01 de agosto de 2017

Juan Enrique Blümel. Departamento Medicina Sur. Universidad de Chile

**Osteoporos Int. 2017 Jul 26. doi: 10.1007/s00198-017-4140-y. [Epub ahead of print]**

### **Effect of denosumab on trabecular bone score in postmenopausal women with osteoporosis.**

McClung MR, Lippuner K, Brandi ML, Zanchetta JR, Bone HG, Chapurlat R, Hans D, Wang A, Zapalowski C, Libanati  
INTRODUCTION: TBS, a gray-level texture index determined from lumbar spine DXA scans, correlates with bone microarchitecture and enhances assessment of vertebral fracture risk independently of BMD. In the FREEDOM study, denosumab increased BMD and reduced new vertebral fractures in postmenopausal women with osteoporosis. This retrospective analysis explored the effect of denosumab on TBS and the association between TBS and BMD in FREEDOM. METHODS: Postmenopausal women with lumbar spine or total hip BMD T-score  $< -2.5$  and  $-4.0$  or higher at both sites received placebo or denosumab 60 mg subcutaneously every 6 months. TBS indices were determined from DXA scans at baseline and months 12, 24, and 36 in a subset of 285 women (128 placebo, 157 denosumab) who had TBS values at baseline and  $\geq 1$  postbaseline visit. RESULTS: Baseline characteristics were comparable between treatment groups; mean (SD) lumbar spine BMD T-score was  $-2.79$  (0.64), and mean (standard deviation [SD]) TBS was 1.200 (0.101) overall. In the placebo group, BMD and TBS increased by  $\leq 0.2\%$  or decreased from baseline at each visit. In the denosumab group, progressive increases from baseline at 12, 24, and 36 months were observed for BMD (5.7, 7.8, and 9.8%) and TBS (1.4, 1.9, and 2.4%). Percentage changes in TBS were statistically significant compared with baseline ( $p < 0.001$ ) and placebo ( $p \leq 0.014$ ). TBS was largely unrelated to BMD, regardless of treatment, either at baseline or for annual changes from baseline (all  $r^2 \leq 0.06$ ). CONCLUSIONS: In postmenopausal women with osteoporosis, denosumab significantly improved TBS independently of BMD.

**Rev Bras Reumatol Engl Ed. 2017 Jul - Aug;57(4):299-305. doi: 10.1016/j.rbre.2016.10.002. Epub 2016 Nov 9.**

### **Association between body mass index and osteoporosis in women from northwestern Rio Grande do Sul.**

Mazocco L, Chagas P.

OBJECTIVE: To investigate the association between body mass index (BMI) and bone mineral density (BMD) in postmenopausal women. METHODS: Observational study with postmenopausal women who underwent bone densitometry in Palmeira das Missões - RS. Sociodemographic data, risk for osteoporosis and food intake were assessed through a specific form. BMI was calculated according to WHO criteria. The assessment of BMD was performed by dual-energy X-ray absorptiometry (DXA) and classified according to WHO. Statistical analysis was performed using prevalence ratios (PR) and their respective 95% confidence intervals for the factors studied. Variables associated with  $p < 0.20$  with the different outcomes (osteopenia and osteoporosis) were included in a Poisson regression model with robust variance to adjust for potential confounding factors. A 5% significance level was considered. RESULTS: 393 postmenopausal women with a mean age of  $59.6 \pm 8.2$  years participated. After the adjustments, the normal weight women had 1.2 times the prevalence of osteopenia of obese women (PR=1.2; CI 95% 1.3-1.5). Considering osteoporosis, the PR of euthymic women was twice the PR of obese women (PR=2; CI 95% 1.4-2.9) and was 1.7 times greater for overweight group compared to obese category (PR=1.7; CI 95% 1.2-2.5). CONCLUSION: Obese women had lower prevalence of osteopenia compared with normal weight subjects and also with lower prevalence of osteoporosis as compared to normal- and overweight women.

**Eur J Cancer Prev. 2017 Sep;26(5):385-395. doi: 10.1097/CEJ.0000000000000406.**

### **The potential contribution of dietary factors to breast cancer prevention.**

Shapira N.

Breast cancer (BC), the leading cancer in women, is increasing in prevalence worldwide, concurrent with western metabolic epidemics, that is, obesity, metabolic syndrome, and diabetes, and shares major risk factors with these diseases. The corresponding potential for nutritional contributions toward BC prevention is reviewed and related to critical stages in the life cycle and their implications for carcinogenic and pathometabolic trajectories. BC initiation potentially involves diet-related pro-oxidative, inflammatory, and procarcinogenic processes, that interact through combined lipid/fatty acid peroxidation, estrogen metabolism, and related DNA-adduct/depurination/mutation formation.

The pathometabolic trajectory is affected by high estrogen, insulin, and growth factor cascades and resultant accelerated proliferation/progression. Anthropometric risk factors - high birth weight, adult tallness, adiposity/BMI, and weight gain - are often reflective of these trends. A sex-based nutritional approach targets women's specific risk in western obesogenic environments, associated with increasing fatness, estrogen metabolism, n-6 : n-3 polyunsaturated fatty acid ratio, and n-6 polyunsaturated fatty acid conversion to proinflammatory/carcinogenic eicosanoids, and effects of timing of life events, for example, ages at menarche, full-term pregnancy, and menopause. Recent large-scale studies have confirmed the effectiveness of the evidence-based recommendations against BC risk, emphasizing low-energy density diets, highly nutritious plant-based regimes, physical activity, and body/abdominal adiposity management. Better understanding of dietary inter-relationships with BC, as applied to food intake, selection, combination, and processing/preparation, and recommended patterns, for example, Mediterranean, DASH, plant-based, low energy density, and low glycemic load, with high nutrient/phytonutrient density, would increase public motivation and authoritative support for early/timely prevention, optimally merging with other dietary/health goals, for lifelong BC prevention.

**Health Care Women Int. 2017 Jul 25;0. doi: 10.1080/07399332.2017.1352588. [Epub ahead of print]**

### **Sexual Life of Women in the Climacterium: a community-based study.**

Andac T, Aslan E.

Our purpose of conducting this community-based study was to determine sexual functions of women in climacterium and effects of menopausal symptoms on sexual functions. It was descriptive, cross-sectional and community-based. The study sample consisted of 282 climacteric women. Menopause Rating Scale, Female Sexual Function Index and Sexual Satisfaction Scale for Women were used for data collection. The total score was  $13.42 \pm 8.82$  for Menopause Rating Scale,  $18.73 \pm 9.79$  for Female Sexual Function Index and  $82.56 \pm 18.07$  for Sexual Satisfaction Scale. Seventy-nine-point four percent of the women had sexual dysfunction. While complaints typical of the climacteric period increased, sexual functions and satisfaction decreased.

**Clin Cases Miner Bone Metab. 2017 Jan-Apr;14(1):48-53. doi: 10.11138/ccmbm/2017.14.1.048. Epub 2017 May 30.**

### **The use of cholecalciferol in patients with hip fracture.**

Cianferotti L, Parri S, Gronchi G, Civinini R, Brandi ML.

**INTRODUCTION:** Major osteoporotic fractures are steadily increasing due to population aging. Programs of secondary prevention against refracture are essential to decrease morbidity and mortality and the cost for individuals and the society. Vitamin D supplementation and optimization of calcium intake are of a pivotal importance to start specific osteoporosis treatment and for its safety and efficacy. Cholecalciferol is the most widely employed drug for vitamin D supplementation.

**PURPOSE:** Aim of this study was to assess the trends in the use of vitamin D supplements containing cholecalciferol in the population of hip fracture patients older than 65 years, resident in the region of Tuscany (Italy) in the years 2011-2015 and to describe vitamin D status in a subgroup of this individuals directly referred to a bone clinic for further evaluation after hip osteoporotic fracture. **METHODS:** Data were retrieved from the electronic anonymous regional administrative database administered by the Region of Tuscany (Italy) in the years 2011-2015 within the T.A.R.Ge.T. project (Trattamento Appropriato delle Rifratture Geriatriche in Toscana, i.e., "Appropriate treatment of geriatric refractures in Tuscany"), a program endorsed by the region itself. Data pertaining to cholecalciferol prescriptions and hospital discharge codes were retrieved and appropriately crossed to get data on the use of cholecalciferol supplements in patients before and after a hip fracture. A retrospective analysis was carried out in a subgroup of subjects (n 254) appropriately referred to the local fracture liaison service after the major osteoporotic fracture and vitamin D status in terms of serum 25(OH) vitamin D levels was assessed. **RESULTS:** The majority of subjects experiencing a hip fracture (98.2% and 88.3% in 2011 and 2015, respectively) did not receive vitamin D supplements at the time of the fracture event. Although a trend in increase in prescriptions for cholecalciferol supplements could be observed in the years of the study, the percentage of treated individuals remained low even after the fracture, since only 30-35% of subjects receives cholecalciferol supplements at one year after the fracture. Cholecalciferol remained the most prescribed drug in this population, while a substantial decrease of cholecalciferol in association with calcium salts was observed. The use of high doses of cholecalciferol has decreased in this population, while diminished the use of the drops has been accompanied by an increase in prescriptions of single monthly dose supplements. **CONCLUSIONS:** The correction of vitamin D inadequacy is preliminary to any treatment for osteoporosis and together with calcium may reduce fracture risk by itself. The prescription of vitamin D supplements is low in patients before and after a hip fracture in a

Mediterranean region and despite the overall increase in vitamin use and abuse in the general population. Proper educational programs and active fracture liaison services are needed in order to bridge this gap.

**Osteoporos Int. 2017 Jul 22. doi: 10.1007/s00198-017-4151-8. [Epub ahead of print]**

### **Osteosarcopenia: where bone, muscle, and fat collide.**

Hirschfeld HP, Kinsella R, Duque G.

As the world's population ages, the prevalence of chronic diseases increases. Sarcopenia and osteoporosis are two conditions that are associated with aging, with similar risk factors that include genetics, endocrine function, and mechanical factors. Additionally, bone and muscle closely interact with each other not only anatomically, but also chemically and metabolically. Fat infiltration, a phenomenon observed in age-related bone and muscle loss, is highly prevalent and more severe in sarcopenic and osteoporotic subjects. Clinically, when individuals suffer a combination of both disorders, negative outcomes such as falls, fractures, loss of function, frailty, and mortality increase, thus generating significant personal and socio-economic costs. Therefore, it is suggested that when bone mineral density loss is synchronic with decreased muscle mass, strength, and function, it should be interpreted as a single diagnosis of osteosarcopenia, which may be preventable and treatable. Simple interventions such as resistance training, adequate protein and calcium dietary intake, associated with maintenance of appropriate levels of vitamin D, have a dual positive effect on bone and muscle, reducing falls, fractures, and, consequently, disability. It is essential that fracture prevention approaches-including postfracture management-involve assessment and treatment of both osteoporosis and sarcopenia. This is of particular importance as in older persons the combination of osteopenia/osteoporosis and sarcopenia has been proposed as a subset of frailer individuals at higher risk of institutionalization, falls, and fractures. This review summarizes osteosarcopenia epidemiology, pathophysiology, diagnosis, outcomes, and management strategies.

**J Am Geriatr Soc. 2017 Jul 29. doi: 10.1111/jgs.14960. [Epub ahead of print]**

### **Accelerometer-Measured Moderate to Vigorous Physical Activity and Incidence Rates of Falls in Older Women.**

Buchner DM, Rillamas-Sun E, Di C, LaMonte MJ, Marshall SW, Hunt J, Zhang Y2, Rosenberg DE, Lee IM, et al.

**OBJECTIVES:** To examine whether moderate to vigorous physical activity (MVPA) measured using accelerometry is associated with incident falls and whether associations differ according to physical function or history of falls. **DESIGN:** Prospective study with baseline data collection from 2012 to 2014 and 1 year of follow-up. **SETTING:** Women's Health Initiative participants living in the United States. **PARTICIPANTS:** Ambulatory women aged 63 to 99 (N = 5,545). **MEASUREMENTS:** Minutes of MVPA per day measured using an accelerometer, functional status measured using the Short Physical Performance Battery (SPPB), fall risk factors assessed using a questionnaire, fall injuries assessed in a telephone interview, incident falls ascertained from fall calendars. **RESULTS:** Incident rate ratios (IRRs) revealed greater fall risk in women in the lowest quartile of MVPA compared to those in the highest (IRR = 1.18, 95% confidence interval = 1.01-1.38), adjusted for age, race and ethnicity, and fall risk factors. Fall rates were not significantly associated with MVPA in women with high SPPB scores (9-12) or one or fewer falls in the previous year, but in women with low SPPB scores ( $\leq 8$ ) or a history of frequent falls, fall rates were higher in women with lower MVPA levels than in those with higher levels (interaction  $P < .03$  and  $< .001$ , respectively). Falls in women with MVPA above the median were less likely to involve injuries requiring medical treatment (9.9%) than falls in women with lower MVPA levels (13.0%) ( $P < .001$ ). **CONCLUSION:** These findings indicate that falls are not more common or injurious in older women who engage in higher levels of MVPA. These findings support encouraging women to engage in the amounts and types of MVPA that they prefer. Older women with low physical function or frequent falls with low levels of MVPA are a high-risk group for whom vigilance about falls prevention is warranted.