



## Selección de Resúmenes de Menopausia

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### Diabetes and Bone.

Heilmeyer U, Patsch JM.

Skeletal fragility has been recognized as an important feature of diabetes mellitus type 1 (T1D) and type 2 (T2D). While patients with DM1 typically display low bone mineral density (BMD) and concomitant increases in fracture risk, T2D bone disease is more complex and less understood. Although BMD is often normal or even slightly elevated, the risk of fragility fractures is disproportionately high. Alterations in bone quality (i.e., bone microstructure and matrix properties) have been reported by independent groups of researchers. Cortical porosity and the deposition of advanced glycation end-products appear to play key roles. Paired with low bone turnover, another distinct feature of T2D bone disease, secondary complications (including nephropathy, neuropathy, and angiopathy) are adding up to form a complex entity distinct from postmenopausal and age-related osteoporosis. This article offers an overview of current concepts in pathophysiology, clinical features, and imaging features of diabetic bone disease.

**Climacteric. 2016 Oct 13:1-5. [Epub ahead of print]**

### Medical and patient attitude towards vaginal atrophy: the AGATA study.

Palma F, Della Vecchia E, Cagnacci A; as the Writing Group of the AGATA study.

**OBJECTIVES:** To provide data on current management of vaginal atrophy (VA) in a nationwide setting.  
**METHODS:**

A cross-sectional, multicenter study was made in 913 postmenopausal women consulting 22 gynecological outpatient services. VA was diagnosed with a combination of subjective symptoms and objective evaluations. Women with a previous diagnosis and those with a new diagnosis of VA filled additional questionnaires regarding modalities of VA management and reasons for missing diagnosis, respectively. **RESULTS:** 730/913 (80%) women had ever had a diagnosis of VA. In 274 (37.5%), the diagnosis was made prior to, and in 456 (62.5%) during the investigation. Of women with a new VA diagnosis, 81.1% had never discussed their symptoms with the health-care practitioner (HCP), and 78.7% (n = 359) had never been questioned by an HCP. Of women with a previous VA diagnosis, 90.2% had been treated with systemic (10.1%), local hormonal (49.4%) or local non-hormonal (30.5%) therapy. At the time of investigation, 61.9% of these women had stopped treatment, with only 3.3% having been successfully cured. **CONCLUSIONS:** VA is highly prevalent in postmenopausal women. Its current management and treatment seem to be highly unsatisfactory and can be improved by medical sensitization and patient education.

**J Bone Miner Res. 2016 Oct 13. doi: 10.1002/jbmr.3018. [Epub ahead of print]**

### Irreversible Deterioration of Cortical and Trabecular Microstructure Associated with Breastfeeding.

Bjørnerem Å, Ghasem-Zadeh A, Wang X, Bui M, Walker SP, Zebaze R, Seeman E.

Estrogen deficiency associated with menopause is accompanied by an increase in the rate of bone remodeling and the appearance of a remodeling imbalance; each of the greater number of remodeling transactions deposits less bone than was resorbed resulting in microstructural deterioration. The newly deposited bone is also less completely mineralized than the older bone resorbed. We examined whether breastfeeding, an estrogen deficient state, compromises bone microstructure and matrix mineral density. Distal tibial and distal radial microarchitecture were quantified using high-resolution peripheral quantitative computed tomography in 58 women prior, during and after breastfeeding, and in 48 controls during one to five years follow-up. Five months of exclusive breastfeeding increased cortical porosity by 0.6% (95% confidence interval [CI] 0.3-0.9), reduced matrix mineralization density by 0.26% (95% CI 0.12-0.41), (both  $p < 0.01$ ), reduced trabecular number by 0.22 per mm (95% CI 0.15-0.28), and increased trabecular separation by 0.07 mm (95% CI 0.05-0.08), (all  $p < 0.001$ ). Relative to pre-breastfeeding, at a median of 2.6 years (range 1 to 4.8) after cessation of breastfeeding, cortical porosity remained 0.58 SD (95% CI 0.48-0.68) higher, matrix mineralization density remained 1.28 SD (95% CI 1.07-1.49) lower, trabeculae were 1.33

SD (95% CI 1.15-1.50) fewer and 1.06 SD (95% CI 0.91-1.22) more greatly separated (all  $p < 0.001$ ). All deficits were greater than in controls. The results were similar at distal radius. Bone microstructure may be irreversibly deteriorated following cessation of breastfeeding at appendicular sites. Studies are needed to establish whether this deterioration compromises bone strength and increases fracture risk later in life.

**Eur Rev Med Pharmacol Sci. 2016 Sep;20(18):3934-3944.**

### **Ospemifene: a safe treatment of vaginal atrophy.**

Del Pup L.

**OBJECTIVE:** Vaginal atrophy is a chronic, progressive medical condition that affects fifty percent of postmenopausal women, causing symptoms like dyspareunia, vaginal dryness, and vaginal irritation. Until recently, the only prescription options were systemic and vaginal estrogen therapies that might be limited by concerns about long-term safety and breast cancer risk. The objective is to analyze the literature about ospemifene, a tissue-selective estrogen receptor modulator (SERM) recently approved for the treatment of vulvovaginal atrophy and dyspareunia and to compare its effects with those of the other SERMs to assess its safety. **MATERIALS AND METHODS:** Review. Medline search. **RESULTS:** Ospemifene treats vaginal atrophy, and, if compared with other SERMs, it has no or not significant effects on endometrium and thromboembolism. Experimental and animal models suggest an inhibitory effect on the growth of malignant breast tissue. The available clinical data support ospemifene breast safety. **CONCLUSIONS:** Ospemifene relieves moderate to severe symptoms of vulvovaginal atrophy, like dryness, irritation and soreness around the genital area, and painful sexual intercourse, in menopausal women. It is well tolerated, and it has neutral effects on endometrium and coagulation. Clinical trials and even long-term studies on breast cancer effects support ospemifene overall safety.

**Metabolism. 2016 Nov;65(11):1605-1613. doi: 10.1016/j.metabol.2016.07.008. Epub 2016 Jul 25.**

### **Effects of diet composition on weight loss, metabolic factors and biomarkers in a 1-year weight loss intervention in obese women examined by baseline insulin resistance status.**

Rock CL, Flatt SW, Pakiz B, Quintana EL, Heath DD, Rana BK, Natarajan L.

**BACKGROUND:** Obesity is a risk factor for postmenopausal breast cancer incidence and premenopausal and postmenopausal breast cancer mortality, which may be explained by several metabolic and hormonal factors (sex hormones, insulin resistance, and inflammation) that are biologically related. Differential effects of dietary composition on weight loss and these metabolic factors may occur in insulin-sensitive vs. insulin-resistant obese women. **OBJECTIVE:** To examine the effect of diet composition on weight loss and metabolic, hormonal and inflammatory factors in overweight/obese women stratified by insulin resistance status in a 1-year weight loss intervention. **METHODS AND RESULTS:** Nondiabetic women who were overweight/obese ( $n=245$ ) were randomly assigned to a lower fat (20% energy), higher carbohydrate (65% energy) diet; a lower carbohydrate (45% energy), higher fat (35% energy) diet; or a walnut-rich (18% energy), higher fat (35% energy), lower carbohydrate (45% energy) diet. All groups lost weight at follow-up ( $P < 0.0001$ ), with mean (SEM) percent loss of 9.2(1.1)% in lower fat, 6.5(0.9)% in lower carbohydrate, and 8.2(1.0)% in walnut-rich groups at 12months. The diet $\times$ time $\times$ insulin resistance status interaction was not statistically significant in the model for overall weight loss, although insulin sensitive women at 12months lost more weight in the lower fat vs. lower carbohydrate group (7.5kg vs. 4.3kg,  $P=0.06$ ), and in the walnut-rich vs. lower carbohydrate group (8.1kg vs. 4.3kg,  $P=0.04$ ). Sex hormone binding globulin increased within each group except in the lower carbohydrate group at 12months ( $P < 0.01$ ). C-reactive protein and interleukin-6 decreased at follow-up in all groups ( $P < 0.01$ ). **CONCLUSIONS:** Findings provide some support for differential effects of diet composition on weight loss depending on insulin resistance status. Prescribing walnuts is associated with weight loss comparable to a standard lower fat diet in a behavioral weight loss intervention. Weight loss itself may be the most critical factor for reducing the chronic inflammation associated with increased breast cancer risk and progression.

**Cochrane Database Syst Rev. 2016 Oct 12;10:CD008536. [Epub ahead of print]**

### **Short-term and long-term effects of tibolone in postmenopausal women.**

Formoso G, Perrone E, Maltoni S, Balduzzi S, Wilkinson J, Basevi V, Marata AM, Magrini N, D'Amico R, et al.

**OBJECTIVES:** To evaluate the effectiveness and safety of tibolone for treatment of postmenopausal and perimenopausal women. **SELECTION CRITERIA:** We included randomised controlled trials (RCTs) comparing tibolone versus placebo, oestrogens and/or combined hormone therapy (HT) in postmenopausal and perimenopausal women. **MAIN RESULTS:** We included 46 RCTs (19,976 women). Vasomotor symptoms: Tibolone was more effective than placebo (standard mean difference (SMD) -0.99, 95% confidence interval (CI) -1.10 to -0.89; seven RCTs; 1657 women; moderate-quality evidence), but removing trials at high risk of attrition bias attenuated this effect (SMD -0.61, 95% CI -0.73 to -0.49; odds ratio (OR) 0.33, 85% CI 0.27 to 0.41). This suggests that if 67% of women taking placebo experience vasomotor symptoms, between 35% and 45% of women taking tibolone will do so. **Unscheduled bleeding:** Tibolone was associated with greater likelihood of bleeding (OR 2.79, 95% CI 2.10 to 3.70; nine RCTs; 7814 women; I<sup>2</sup> = 43%; moderate-quality evidence). This suggests that if 18% of women taking placebo experience unscheduled bleeding, between 31% and 44% of women taking tibolone will do so. **Long-term adverse events:** Most of the studies reporting these outcomes provided follow-up of two to three years (range three months to three years). **Breast cancer:** We found no evidence of differences between groups among women with no history of breast cancer (OR 0.52, 95% CI 0.21 to 1.25; four RCTs; 5500 women; I<sup>2</sup> = 17%; very low-quality evidence). Among women with a history of breast cancer, tibolone was associated with increased risk (OR 1.5, 95% CI 1.21 to 1.85; two RCTs; 3165 women; moderate-quality evidence). **Cerebrovascular events:** We found no conclusive evidence of differences between groups in cerebrovascular events (OR 1.74, 95% CI 0.99 to 3.04; four RCTs; 7930 women; I<sup>2</sup> = 0%; very low-quality evidence). We obtained most data from a single RCT (n = 4506) of osteoporotic women aged 60 to 85 years, which was stopped prematurely for increased risk of stroke. **Other outcomes:** Evidence on other outcomes was of low or very low quality, with no clear evidence of any differences between the groups. Effect estimates were as follows: *Endometrial cancer:* OR 2.04, 95% CI 0.79 to 5.24; nine RCTs; 8504 women; I<sup>2</sup> = 0%. *Cardiovascular events:* OR 1.38, 95% CI 0.84 to 2.27; four RCTs; 8401 women; I<sup>2</sup> = 0%. *Venous thromboembolic events:* OR 0.85, 95% CI 0.37 to 1.97; 9176 women; I<sup>2</sup> = 0%. *Mortality from any cause:* OR 1.06, 95% CI 0.79 to 1.41; four RCTs; 8242 women; I<sup>2</sup> = 0%. **Tibolone versus combined HT.** Vasomotor symptoms: Combined HT was more effective than tibolone (SMD 0.17, 95% CI 0.06 to 0.28; OR 1.36, 95% CI 1.11 to 1.66; nine studies; 1336 women; moderate-quality evidence). This result was robust to a sensitivity analysis that excluded trials with high risk of attrition bias, suggesting a slightly greater disadvantage of tibolone (SMD 0.25, 95% CI 0.09 to 0.41; OR 1.57, 95% CI 1.18 to 2.10). This suggests that if 7% of women taking combined HT experience vasomotor symptoms, between 8% and 14% of women taking tibolone will do so. **Unscheduled bleeding:** Tibolone was associated with a lower rate of bleeding (OR 0.32, 95% CI 0.24 to 0.41; 16 RCTs; 6438 women; I<sup>2</sup> = 72%; moderate-quality evidence). This suggests that if 47% of women taking combined HT experience unscheduled bleeding, between 18% and 27% of women taking tibolone will do so. **Long-term adverse events:** Most studies reporting these outcomes provided follow-up of two to three years (range three months to three years). Evidence was of very low quality, with no clear evidence of any differences between the groups. Effect estimates were as follows: *Endometrial cancer:* OR 1.47, 95% CI 0.23 to 9.33; five RCTs; 3689 women; I<sup>2</sup> = 0%. *Breast cancer:* OR 1.69, 95% CI 0.78 to 3.67; five RCTs; 4835 women; I<sup>2</sup> = 0%. *L-...:* OR 0.44, 95% CI 0.09 to 2.14; four RCTs; 4529 women; I<sup>2</sup> = 0%. *Cardiovascular events:* OR 0.63, 95% CI 0.24 to 1.66; two RCTs; 3794 women; I<sup>2</sup> = 0%. *Cerebrovascular events:* OR 0.76, 95% CI 0.16 to 3.66; four RCTs; 4562 women; I<sup>2</sup> = 0%. *Mortality from any cause:* only one event reported (two RCTs; 970 women). **AUTHORS' CONCLUSIONS:** Moderate-quality evidence suggests that tibolone is more effective than placebo but less effective than HT in reducing menopausal vasomotor symptoms, and that tibolone is associated with a higher rate of unscheduled bleeding than placebo but with a lower rate than HT. Compared with placebo, tibolone increases recurrent breast cancer rates in women with a history of breast cancer, and may increase stroke rates in women over 60 years of age. No evidence indicates that tibolone increases the risk of other long-term adverse events, or that it differs from HT with respect to long-term safety. Much of the evidence was of low or very low quality. Limitations included high risk of bias and imprecision. Most studies were financed by drug manufacturers or failed to disclose their funding source.