



## Selección de Resúmenes de Menopausia

Semana del 25 al 31 de marzo 2020

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### **Alendronate medication possession ratio and the risk of second hip fracture: an 11-year population-based cohort study in Taiwan.**

Chen YJ1,2,3, Kung PT4,5, Chou WY1, Tsai WC6.

Alendronate is effective in preventing second hip fracture in osteoporotic patients. However, no consensus exists on the duration that is effective in preventing a second hip fracture. Our study demonstrated that risk can be reduced when the prescription is  $\geq 6$  months for the year following the index hip fracture. **INTRODUCTION:** Alendronate is effective in preventing second hip fracture in osteoporotic patients. However, no consensus exists on the accurate medication possession ratio (MPR) that is effective in preventing a second hip fracture. Our objective was to compare the risk of second hip fracture in patients treated with different MPR of alendronate. **METHODS:** In this population-based cohort study, data from National Health Insurance Research Database of Taiwan were analyzed. Patients 50 years and older who had an index hip fracture and were not receiving any osteoporotic medications before their fracture during 2000-2010 were included. The cohort consisted of 88,320 patients who were new alendronate users ( $n = 9278$ ) and non-users ( $n = 79,042$ ). Those without alendronate were matched 4:1 as the control group. Patients were subdivided into those with no medication, MPR  $< 25\%$ , MPR 25-50%, MPR 50-75%, and MPR 75-100%. Cox proportional hazard models were used to calculate the adjusted hazard ratios for different MPRs of alendronate. **RESULTS:** After matching, 38,675 patients were included in this study; 20,363 (52.7%) were women, and 30,940 (80%) patients were without medication of alendronate. During follow-up on December 31, 2012, 2392 patients had a second hip fracture, for an incidence of 1449/100,000 person-years. Patients with alendronate MPR 50-75% had a lower risk of a second hip fracture compared to non-users (hazard ratio 0.66). When the MPR increased to 75-100%, the hazard ratio decreased to 0.61. **CONCLUSIONS:** In this population-based cohort study, risk of a second hip fracture can be reduced when the alendronate MPR is  $\geq 50\%$  for the year following the index hip fracture. As the MPR increases, the risk of a second hip fracture decreases.

**Methods Mol Biol. 2020;2138:363-371. doi: 10.1007/978-1-0716-0471-7\_26.**

### **The Association of Food Intake and Physical Activity with Body Composition, Muscle Strength, and Muscle Function in Postmenopausal Women.**

Vafa M1, Abiri B2, Dehghani M3.

Sarcopenia is defined as an age-related reduction in muscle mass and performance. Some of the most important risk factors include advanced age, malnutrition, and sedentary lifestyle. The aim of this study was to investigate the association of food intake and physical activity with body composition, muscle strength, and muscle function in a cross-sectional study of postmenopausal women. This analysis gave a positive association between physical activity and handgrip strength, calorie intake and muscle function, protein intake and fat-free mass percentage, and total fat intake and fat mass percentage. In addition, there were negative associations found between carbohydrate intake and muscle function, as well as total fat intake and fat-free mass percentage. This chapter presents a protocol for the study setup along with measurements of physical activity, handgrip strength, nutrient intake, and fat-free mass percentage.

**Pituitary. 2020 Mar 26. doi: 10.1007/s11102-020-01041-3. [Epub ahead of print]**

### **Hyperprolactinemia and bone.**

di Filippo L1, Doga M1, Resmini E2, Giustina A3.

Prolactin (PRL) has direct and indirect effects on bone metabolism. Experimental studies showed that in the presence of high PRL levels bone resorption was increased as well as bone formation was suppressed. Increased PRL levels in humans caused a reduction in sex hormone levels which turn may have detrimental effects on bone. Patients with hyperprolactinemia did have often decreased bone mineral density as well as an increased risk of fractures. Since PRL control may be relevant to bone health it is a clinical open issue the inclusion of skeletal health in future guidelines as indication to proactive screening, prevention and treatment particularly in high risk patients such as hyperprolactinemic women after menopause and patients with drug induced hyperprolactinemia.

**R Soc Open Sci. 2020 Jan 15;7(1):191020. doi: 10.1098/rsos.191020. eCollection 2020 Jan.**

## **Sexual frequency is associated with age of natural menopause: results from the Study of Women's Health Across the Nation.**

Arnot M1, Mace R1.

It is often observed that married women have a later age of natural menopause (ANM) than unmarried women; however, the reason for this association is unknown. We test an original hypothesis that sexual frequency acts as a bio-behavioural mediator between marital status and ANM. We hypothesize that there is a trade-off between continued ovulation and menopause based on the woman's chances of becoming pregnant. If a woman is sexually inactive, then pregnancy is impossible, and continued investment in ovulation would not be adaptive. In addition, we test an existing hypothesis that the observed relationship is because of the exposure to male pheromones. Data from 2936 women were drawn from 11 waves of the Study of Women's Health Across the Nation, which is a longitudinal study conducted in the United States. Using time-varying Cox regression, we found no evidence for the pheromone hypothesis. However, we did observe that women who reported to have sex weekly during the study period were 28% less likely to experience menopause than women who had sex less than monthly. This is an indication that ANM may be somewhat facultative in response to the likelihood of pregnancy.

**Menopause. 2020 Mar 23. doi: 10.1097/GME.0000000000001540. [Epub ahead of print]**

## **Depression, hormone therapy, and the menopausal transition among women aged 45 to 64 years using Canadian Longitudinal Study on aging baseline data.**

Shea AK1,2,3, Sohel N3,4,5, Gilsing A3,4,5, Mayhew AJ3,4,5, Griffith LE3,4,5, Raina P3,4,5.

**OBJECTIVE:** To investigate the association between menopausal status, hormone therapy (HT) use and the presence of depressive symptoms among middle-aged women in Canada. **METHODS:** Cross-sectional baseline data from 13,216 women aged 45 to 64 years from the Canadian Longitudinal Study on Aging (CLSA) was used. The association between menopausal status (pre- vs postmenopausal) and self-reported symptoms of depression based on a score of 10 or more on the Center for Epidemiologic Studies Short Depression Scale-10 was assessed using logistic regression. Use and duration of use of HT, time since menopause, age at onset of menopause, and socioeconomic status and other contextual variables were explored for the association with depression. **RESULTS:** Overall, 18.4% of middle-aged women in the CLSA data were identified as depressed using the Center for Epidemiologic Studies Short Depression Scale-10. Based on the logistic regression models, women reporting premature menopause (before the age of 40 years) and postmenopausal women currently using HT had 1.45 (1.07-1.97) and 1.21 (1.02-1.44) greater odds of having depression. Chi-square analyses showed that women with depressive symptoms were more likely to have low education, low household incomes, live alone, be nulliparous, and have low social support. **CONCLUSIONS:** Our findings highlight the association between depression and premature menopause among midlife women. Current HT use may be a proxy for more severe menopausal vasomotor symptoms, a known risk factor for depressive symptoms. Identification of risk factors, including social determinants of health, age at menopause, and menopausal symptoms can help guide clinicians when assessing mental health.

**Front Neurosci. 2020 Mar 10;14:157. doi: 10.3389/fnins.2020.00157. eCollection 2020.**

## **The Effect of Estrogen Replacement Therapy on Alzheimer's Disease and Parkinson's Disease in Postmenopausal Women: A Meta-Analysis.**

Song YJ1, Li SR1, Li XW1, Chen X1, Wei ZX1, Liu QS1, Cheng Y1.

**Background:** Estrogen replacement therapy (ERT) is a common treatment method for menopausal syndrome; however, its therapeutic value for the treatment of neurological diseases is still unclear. Epidemiological studies were performed, and the effect of postmenopausal ERT on treating neurodegenerative diseases, including Alzheimer's disease (AD) and Parkinson's disease (PD), was summarized through a meta-analysis. **Methods:** Twenty-one articles were selected using a systematic searching of the contents listed on PubMed and Web of Science before June 1, 2019. Epidemiological studies were extracted, and relevant research data were obtained from the original articles based on the predefined inclusion criteria and data screening principles. The Comprehensive Meta-Analysis Version 2 software was used to pool effective size, test heterogeneity, conduct meta-regression and subgroup analysis, and to calculate publication bias. **Results:** Our results showed that ERT significantly decreased the risk of onset and/or development of AD [odds ratio (OR): 0.672; 95% CI: 0.581-0.779;  $P < 0.001$ ] and PD (OR: 0.470; 95% CI: 0.368-0.600;  $P < 0.001$ ) compared with the control group. A subgroup and meta-regression analysis showed that study design and measure of effect were the source of heterogeneity. Age, sample size, hormone therapy ascertainment, duration of the treatment, or route of

administration did not play a significant role in affecting the outcome of the meta-analysis. Conclusion: We presented evidence here to support the use of estrogen therapy for the treatment of AD and PD.

**Maturitas 2020 Mar 16. pii: S0378-5122(20)30215-2.doi:10.1016/j.maturitas.2020.03.007.[Epub ahead of print]**  
**Menopause symptom management in women with dyslipidemias: An EMAS clinical guide.**

Anagnostis P1, Bitzer J2, Cano A3, Ceausu I4, Chedraui P5, Durmusoglu F6, Erkkola R7, Goulis DG8, et al.

**INTRODUCTION:** Dyslipidemias are common and increase the risk of cardiovascular disease. The menopause transition is associated with an atherogenic lipid profile, with an increase in the concentrations of total cholesterol (TC) and low-density lipoprotein cholesterol (LDL-C), triglycerides (TG), apolipoprotein B (apoB) and potentially lipoprotein (a) [Lp(a)], and a decrease in the concentration of high-density lipoprotein cholesterol (HDL-C). **AIM:** The aim of this clinical guide is to provide an evidence-based approach to management of menopausal symptoms and dyslipidemia in postmenopausal women. The guide evaluates the effects on the lipid profile both of menopausal hormone therapy and of non-estrogen-based treatments for menopausal symptoms. **MATERIALS AND METHODS:** Literature review and consensus of expert opinion. **SUMMARY RECOMMENDATIONS:** Initial management depends on whether the dyslipidemia is primary or secondary. An assessment of the 10-year risk of fatal cardiovascular disease, based on the Systematic Coronary Risk Estimation (SCORE) system, should be used to set the optimal LDL-C target. Dietary changes and pharmacological management of dyslipidemias should be tailored to the type of dyslipidemia, with statins constituting the mainstay of treatment. With regard to menopausal hormone therapy, systemic estrogens induce a dose-dependent reduction in TC, LDL-C and Lp(a), as well as an increase in HDL-C concentrations; these effects are more prominent with oral administration. Transdermal rather than oral estrogens should be used in women with hypertriglyceridemia. Micronized progesterone or dydrogesterone are the preferred progestogens due to their neutral effect on the lipid profile. Tibolone may decrease TC, LDL-C, TG and Lp(a), but also HDL-C concentrations. Low-dose vaginal estrogen and ospemifene exert a favorable effect on the lipid profile, but data are scant regarding dehydroepiandrosterone (DHEA). Non-estrogen-based therapies, such as fluoxetine and citalopram, exert a more favorable effect on the lipid profile than do sertraline, paroxetine and venlafaxine. Non-oral testosterone, used for the treatment of hypoactive sexual desire disorder/dysfunction, has little or no effect on the lipid profile.

**Endocrine. 2020 Mar 23. doi: 10.1007/s12020-020-02259-8. [Epub ahead of print]**

**Effect of subclinical hyperthyroidism on osteoporosis: A meta-analysis of cohort studies.**

Xu N1, Wang Y1, Xu Y1, Li L1, Chen J1, Mai X1, Xu J1, Zhang Z1, Yang R1, Sun J1, Chen H2, Chen R3.

**OBJECTIVE:** The effect of subclinical hyperthyroidism (SH) on bone mineral density (BMD) remains unclear, as do the linking mechanisms. This review aims to investigate the relationship between SH and bone loss in terms of the gender-dependent effects of SH on BMD. **METHODS:** The PUBMED, EMBASE, OVID, MEDLINE, SINOMED and COCHRANE LIBRARY databases (inception to August 12, 2019) were searched for cohort studies investigating the effects of SH on BMD. Eligible studies were subjected to qualitative and quantitative analysis using a random-effects model meta-analysis with the Cochrane systematic evaluation method. **RESULTS:** Twelve cohort studies involving 275,086 participants who were followed for 3 months to 13 years were included based on predefined inclusion and exclusion criteria. The results indicated that SH did not affect lumbar spine BMD in females or males. However, a significant reduction in femoral neck BMD was observed in females, but not in males. Further, there was a significant increase in hip fractures events in both females and males with SH. **CONCLUSIONS:** The present findings indicate that SH is significantly associated with hip fracture risk, and therefore, it is important to assess the risk of fractures in patients with SH. Future studies should focus on methods for accurately determining this risk in patients with SH and providing them with timely and efficient diagnosis and treatment.