Selección de Resúmenes de Menopausia

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Secondary Osteoporosis and Metabolic Bone Diseases

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Fragility fracture is a worldwide problem and a main cause of disability and impaired quality of life. It is primarily caused by osteoporosis, characterized by impaired bone quantity and or quality. Proper diagnosis of osteoporosis is essential for prevention of fragility fractures. Osteoporosis can be primary in postmenopausal women because of estrogen deficiency. Secondary forms of osteoporosis are not uncommon in both men and women. Most systemic illnesses and organ dysfunction can lead to osteoporosis. The kidney plays a crucial role in maintaining physiological bone homeostasis by controlling minerals, electrolytes, acid-base, vitamin D and parathyroid function. Chronic kidney disease with its uremic milieu disturbs this balance, leading to renal osteodystrophy. Diabetes mellitus represents the most common secondary cause of osteoporosis. Thyroid and parathyroid disorders can dysregulate the osteoblast/osteoclast functions. Gastrointestinal disorders, malnutrition and malabsorption can result in mineral and vitamin D deficiencies and bone loss. Patients with chronic liver disease have a higher risk of fracture due to hepatic osteodystrophy. Proinflammatory cytokines in infectious, autoimmune, and hematological disorders can stimulate osteoclastogenesis, leading to osteoporosis. Moreover, drug-induced osteoporosis is not uncommon. In this review, we focus on causes, pathogenesis, and management of secondary osteoporosis.

Nutrients. 2022 May 1;14(9):1900. doi: 10.3390/nu14091900.

Vitamin D: Before, during and after Pregnancy: Effect on Neonates and Children

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A worldwide high prevalence of vitamin D (VD) deficiency has become of growing concern because of potential adverse effects on human health, including pregnant women and their offsprings. Beyond its classical function as a regulator of calcium and phosphate metabolism, together with its fundamental role in bone health in every stage of life, its deficiency has been associated to multiple adverse health effects. The classic effects of VD deficiency in pregnancy and neonates have been late hypocalcemia and nutritional rickets. Nevertheless, recent studies have linked VD to fertility and 25(OH)D with several clinical conditions in pregnancy: preeclampsia, gestational diabetes, higher incidence of cesarean section and preterm birth, while in infants, the clinical conditions are low birth weight, lower bone mass and possible relationship with the development of such diseases as bronchiolitis, asthma, type 1 diabetes, multiple sclerosis and autism included as VD non-classical actions. The supplementation with Vitamin D and achievement of optimal levels reduce maternal-fetal and newborn complications. Supplementation in children with VD deficiency reduces the risk of respiratory infections and possibly autoimmune diseases and autism. This review emphasizes the roles of Vitamin D deficiency and the consequences of intervention from preconception to infancy.

Maturitas. 2022 Apr 29;162:52-57. doi: 10.1016/j.maturitas.2022.04.005. Online ahead of print.

Quality of life of patients with bilateral oophorectomy before the age of 45 for the treatment of endometriosis

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Introduction: The study aimed to evaluate the quality of life and associated factors among women who underwent bilateral oophorectomy (BO) before the age of 45 for the treatment of deep infiltrating endometriosis (DIE). Materials and methods: This cross-sectional study was carried out in 52 women who were treated from January 2014 to December 2019 in 2 public and private DIE surgical centers in Toulouse. All women answered the Menopausal Quality of Life questionnaire (MenQOL). Mean MenQOL scores were compared according to age at BO, smoking, BMI, level of education, delay between BO and the survey and post-BO hormone replacement therapy (HRT) using Mann-Whitney and Anova tests. Spearman's correlation coefficient was used to analyze the correlations between all the MEnQOL domain scores and clinical variables. The variables associated with the outcomes in univariate analyses with $p < 0.2$

were jointly evaluated using multiple linear regression. Results: The mean age at the time of the survey was 43.4 ± 3.4 years while the mean age at BO was 40.5 ± 3.4 years. The mean MenQOL score was 3.96 (± 1.45), with the highest scores in the sexual (4.77) and vasomotor (4.01) domains. BMI and smoking were independently and significantly associated with the mean total MenQOL score, all domain scores being significantly higher in overweight/obese women. A trend towards worse MenQOL scores was found in patients who had BO before the age of 41. We did not find any difference according to whether or not they were taking HRT. Conclusion: This is a first study evaluating quality of life in a specific population of oophorectomized women under the age of 45 using MenQOL for DIE. While BO is effective in relieving pain in women with severe DIE, the induced premature menopause is associated with a poor quality of life, which deserves further attention.

Maturitas. 2022 Jun;160:1-3. doi: 10.1016/j.maturitas.2022.01.004. Epub 2022 Jan 21.

Menopausal hormone therapy and melanoma risk in the Australian longitudinal study on women's health

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New evidence on the association between use of menopausal hormone therapy and increased risk of cutaneous melanoma (CM) is emerging. In the Australian Longitudinal Study on Women's Health, we followed 18,850 postmenopausal women for a median of 13.2 years, and observed 356 incident CMs. We found an indication of an association between use of unopposed oestrogen therapy and CM risk (hazard ratio (HR) 1.26; 95% confidence interval (CI) 0.98, 1.61), and no association between use of oestrogen-progestin therapy and CM risk (HR 0.99; 95% CI 0.37, 2.67). More studies are needed to elucidate the potential impact of different types of hormone therapy on CM risk.

J Menopausal Med. 2022 Apr;28(1):25-32. doi: 10.6118/jmm.21027.

Effects of Combination Oral Contraceptives on Bone Mineral Density and Metabolism in Perimenopausal Korean Women

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Objectives: A retrospective cohort study was conducted to evaluate the effects of combination oral contraceptives (COCs) on bone mineral density (BMD) and metabolism in perimenopausal Korean women. Methods: The study subjects comprised two groups. The COC group included 55 women who took low-dose COC for at least one year to control vasomotor symptoms. Another 55 women who had annual checkups without history of COC use served as controls. BMD and bone turnover markers were assessed periodically. Results: In the control group, 12-month BMD values at the lumbar spine (LS) and total hip (TH) significantly decreased with a greater magnitude at LS, and bone resorption (BR) and formation (BF) markers increased concurrently with a larger change in BR. COCs increased BMD at LS after 12 months and prevented BMD decline at TH. Multivariable linear regression revealed a significant difference in LS BMD between groups at 12 months. In the COC group, there were significant negative correlations between baseline BMD and Z-score at LS and corresponding changes at 12 months. COCs did not alter BR markers, whereas BF markers were significantly decreased at 3 months. Group comparison at 12 months, as tested with adjusted linear regression, disclosed significant differences in both BR and BF makers. Conclusions: Bone loss associated with activated bone turnover is evident during the menopausal transition, and COCs might prevent BMD decrease and suppress bone turnover markers in perimenopausal Korean women. Significant increase in LS BMD and decreases in BF makers suggest underlying mechanisms of greater impact on BF.

Front Endocrinol (Lausanne). 2022 Apr 22;13:837852. doi: 10.3389/fendo.2022.837852. eCollection 2022.

Sex Differences in Memory: Do Female Reproductive Factors Explain the Differences?

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Background: The sex differences in memory impairment were inconclusive, and the effect of female reproductive factors (age at menarche, age at menopause, and reproductive period) on the differences was not clear. We aimed to examine the sex differences in objective and subjective memory impairment in postmenopausal women and age- and education-matched men and explore whether the differences were differed by female reproductive factors. Methods: Data were obtained from the China Health and Retirement Longitudinal Study. Using the case-control matching method, 3,218 paired postmenopausal women and men matched for age and education were selected. Memory was

assessed using the three-word recall task and a self-rated question. Poisson regression models with a robust error variance were used. Results: The relative risk was 1.22 (95% confidence interval 1.08-1.38) for objective memory impairment in women compared with men (23.87% vs. 27.36%), and 1.51 (1.36-1.67) for subjective memory impairment (39.34% vs. 28.25%) after adjusting the confounders. The higher risk of objective memory impairment in women was different among groups of age at menarche in a linear pattern, with younger age at menarche associated with higher risks of objective memory impairment ($p < 0.001$ for trend). It was also different among groups of menopausal age and reproductive period in an approximate U-shaped pattern, with a similar risk of objective memory with men in women menopause at 52-53 years and having a reproductive period of 31-33 years and higher risks in women with earlier or later menopause (RRs raging form 1.17 to1.41) and a shorter or longer period of reproduction (RR, 1.23-1.29). The higher risks of subjective memory impairment in women were not different among different groups of reproductive factors. Conclusions: Postmenopausal women were at an increased risk of objective and subjective memory impairment than men. The higher risks in objective memory, but not subjective memory, were varied by age at menarche, age at menopause, and reproductive periods, which may help understand the underlying mechanisms of sex differences in cognitive ageing and guide precise intervention to preventing dementia among older women and men.

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Management of menopause: a view towards prevention

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Women spend approximately one-third of their lives with menopause, which occurs around 50 years of age. It is now appreciated that several important metabolic and cardiovascular disease risks emerge during the menopausal transition. Many important conditions occur 10-15 years after menopause, including weight gain and obesity, metabolic syndrome, diabetes, osteoporosis, arthritis, cardiovascular disease, dementia, and cancer; therefore, the occurrence of menopause heralds an important opportunity to institute preventative strategies. These strategies will lead to improved quality of life and decreased mortality. Various strategies are presented for treating symptoms of menopause and diseases that are asymptomatic. Among several strategies is the use of hormone therapy, which has efficacy for symptoms and osteoporosis, and can improve metabolic and cardiovascular health. When instituted early, which is key, in younger postmenopausal women (under 60 years) oestrogen has been found to consistently decrease mortality with a favourable risk-benefit profile in low-risk women. Prospective data show that long-term therapy might not be required for this benefit.

Lancet Diabetes Endocrinol . 2022 May 4;S2213-8587(22)00076-6. doi: 10.1016/S2213-8587(22)00076-6.

Menopause: a cardiometabolic transition

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Menopause is often a turning point for women's health worldwide. Increasing knowledge from experimental data and clinical studies indicates that cardiometabolic changes can manifest at the menopausal transition, superimposing the effect of ageing onto the risk of cardiovascular disease. The menopausal transition is associated with an increase in fat mass (predominantly in the truncal region), an increase in insulin resistance, dyslipidaemia, and endothelial dysfunction. Exposure to endogenous oestrogen during the reproductive years provides women with protection against cardiovascular disease, which is lost around 10 years after the onset of menopause. In particular, women with vasomotor symptoms during menopause seem to have an unfavourable cardiometabolic profile. Early management of the traditional risk factors of cardiovascular disease (ie, hypertension, obesity, diabetes, dyslipidaemia, and smoking) is essential; however, it is important to recognise in the reproductive history the female-specific conditions (ie, gestational hypertension or diabetes, premature ovarian insufficiency, some gynaecological diseases such as functional hypothalamic amenorrhoea, and probably others) that could enhance the risk of cardiovascular disease during and after the menopausal transition. In this Review, the first of a Series of two papers, we provide an overview of the literature for understanding cardiometabolic changes and the management of women at midlife (40-65 years) who are at higher risk, focusing on the identification of factors that can predict the occurrence of cardiovascular disease. We also summarise evidence about preventive non-hormonal strategies in the context of cardiometabolic health.