Selección de Resúmenes de Menopausia

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Low-dose 17-β-estradiol cream for vaginal atrophy in a cohort without prolapse: Serum levels and vaginal response including tissue biomarkers associated with tissue remodeling.

Illston JD, Wheeler TL, Parker CR, Conner MG, Burgio KL, Goode PS, Richter HE.

OBJECTIVES: Describe the effect of 50mcg vaginal 17-β-estradiol (E2) cream on vaginal maturation, serum estrogen levels, atrophic symptoms, and biomarkers of oxidative stress and tissue remodeling in postmenopausal women without prolapse. METHODS: Seventeen women, 65 years or older, applied intravaginal E2 cream nightly for eight weeks, then twice weekly for eight weeks. Vaginal biopsies, serial blood draws, and atrophic symptoms were obtained at baseline, eight, and sixteen weeks. Changes in atrophic symptoms, vaginal maturation indices (VMI), and serum E2 were measured. Immunohistochemical staining characterized levels of transforming growth factor-beta (TGF-β), nuclear factor kappa B (NFKB), inducible nitric oxide synthase (iNOS), endothelial nitric oxide synthase (eNOS), and thrombospondin (TSP). RESULTS: Serum E2 levels (pg/ml) were unchanged from baseline (mean (SD)) 7.7 (3.3) to eight 9.7 (5.7) and sixteen 8.7 (5.8) (p=0.24) weeks. VMI (mean (SD)) improved from baseline 34.2 (18.3) to eight 56.7 (13.1) and sixteen 54.5 (11.3) (p<0.001) weeks with no difference between eight and sixteen weeks. Vaginal dryness (p=0.03) and itching (p=0.02) improved. Tissue biomarker levels did not change (TGF-β p=0.35, NFKB p=0.74, eNOS p=0.80, iNOS p=0.24, TSP p=0.80). DISCUSSION: Vaginal E2 improved atrophic symptoms and VMI without elevating serum E2. Tissue remodeling biomarkers did not change.

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High glycemic index diet as a risk factor for depression: analyses from the Women's Health Initiative.

Gangwisch JE, Hale L, Garcia L, Malaspina D, Opler MG, Payne ME, Rossom RC, Lane D.

BACKGROUND: The consumption of sweetened beverages, refined foods, and pastries has been shown to be associated with an increased risk of depression in longitudinal studies. However, any influence that refined carbohydrates has on mood could be commensurate with their proportion in the overall diet; studies are therefore needed that measure overall intakes of carbohydrate and sugar, glycemic index (GI), and glycemic load. OBJECTIVE:
We hypothesized that higher dietary GI and glycemic load would be associated with greater odds of the prevalence and incidence of depression. DESIGN: This was a prospective cohort study to investigate the relations between dietary GI, glycemic load, and other carbohydrate measures (added sugars, total sugars, glucose, sucrose, lactose, fructose, starch, carbohydrate) and depression in postmenopausal women who participated in the Women's Health Initiative Observational Study at baseline between 1994 and 1998 (n = 87,618) and at the 3-y follow-up (n = 69,954). RESULTS:
We found a progressively higher dietary GI to be associated with increasing odds of incident depression in fully adjusted models (OR for the fifth vs. first quintile: 1.22; 95% CI: 1.09, 1.37), with the trend being statistically significant (P = 0.0032). Progressively higher consumption of dietary added sugars was also associated with increasing odds of incident depression (OR for the fifth vs. first quintile: 1.23; 95% CI: 1.07, 1.41; P-trend = 0.0029). Higher consumption of lactose, fiber, nonjuice fruit, and vegetables was significantly associated with lower odds of incident depression, and nonwhole/refined grain consumption was associated with increased odds of depression. CONCLUSIONS: The results from this study suggest that high-GI diets could be a risk factor for depression in postmenopausal women. Randomized trials should be undertaken to examine the question of whether diets rich in low-GI foods could serve as treatments and primary preventive measures for depression in postmenopausal women

Physiol Rev. 2015 Jul;95(3):785-807. doi: 10.1152/physrev.00036.2014.

Estrogen Effects on Cognitive and Synaptic Health Over the Lifecourse.

Hara Y, Waters EM, McEwen BS, Morrison JH.

Estrogen facilitates higher cognitive functions by exerting effects on brain regions such as the prefrontal cortex and hippocampus. Estrogen induces spinogenesis and synaptogenesis in these two brain regions and also initiates a complex set of signal transduction pathways via estrogen receptors (ERs). Along with the classical genomic effects mediated by activation of ER α and ER β, there are membrane-bound ER α, ER β, and G protein-coupled estrogen receptor 1 (GPER1) that can mediate rapid nongenomic effects. All key ERs present throughout the body are also present in synapses of the hippocampus and prefrontal cortex. This review summarizes estrogen actions in the brain from the standpoint of their effects on synapse structure and function, noting also the synergistic role of progesterone. We first begin with a review of ER subtypes in the brain and how their abundance and distributions are altered with aging and estrogen loss (e.g., ovariectomy or menopause) in the rodent, monkey, and human brain. As there is much evidence that estrogen loss induced by menopause can exacerbate the effects of aging on cognitive functions, we then review the clinical trials of hormone replacement therapies and their effectiveness on cognitive symptoms experienced by women. Finally, we summarize studies carried out in nonhuman primate models of age- and menopause-related cognitive decline that are highly relevant for developing effective interventions for menopausal women. Together, we highlight a new understanding of how estrogen affects higher cognitive functions and synaptic health that go well beyond its effects on reproduction.

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Pharmacologic Options for the Treatment of Sarcopenia.

Morley JE.

Sarcopenia is now clinically defined as a loss of muscle mass coupled with functional deterioration (either walking speed or distance or grip strength). Based on the FRAX studies suggesting that the questions without bone mineral density can be used to screen for osteoporosis, there is now a valid simple questionnaire to screen for sarcopenia, i.e., the SARC-F. Numerous factors have been implicated in the pathophysiology of sarcopenia. These include genetic factors, mitochondrial defects, decreased anabolic hormones (e.g., testosterone, vitamin D, growth hormone and insulin growth hormone-1), inflammatory cytokine excess, insulin resistance, decreased protein intake and activity, poor blood flow to muscle and deficiency of growth derived factor-11. Over the last decade, there has been a remarkable increase in our understanding of the molecular biology of muscle, resulting in a marked increase in potential future targets for the treatment of sarcopenia. At present, resistance exercise, protein supplementation, and vitamin D have been established as the basic treatment of sarcopenia. High-dose testosterone increases muscle power and function, but has a number of potentially limiting side effects. Other drugs in clinical development include selective androgen receptor molecules, ghrelin agonists, myostatin antibodies, activin IIR antagonists, angiotensin converting enzyme inhibitors, beta antagonists, and fast skeletal muscle troponin activators. As sarcopenia is a major predictor of frailty, hip fracture, disability, and mortality in older persons, the development of drugs to treat it is eagerly awaited.

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Impact of Menopause on Pharmacokinetics of Rosuvastatin Compared with Premenopausal Women.

Nazir S, Iqbal Z, Nasir F.

BACKGROUND AND OBJECTIVE: Rosuvastatin is used to treat dyslipidemia and its use is quite frequent among postmenopausal women. Menopause significantly affects the pharmacokinetics of drugs, and altered drug response and therapeutic efficacy may be anticipated in postmenopausal women compared with premenopausal women. The current study is based on assessment of differences in pharmacokinetics of rosuvastatin between pre- and postmenopausal women of Asian ethnicity. METHODS: Volunteers were administered a single oral dose of rosuvastatin 40 mg in an open-label and non-controlled pharmacokinetic study. A reversed-phase HPLC method was applied for quantification of rosuvastatin in plasma samples. Student's t test was used to compare the pharmacokinetic parameters of rosuvastatin between pre- and postmenopausal women at the 95 % confidence interval. RESULTS: The C max (premenopausal = 58.2 ± 29.1, postmenopausal = 12.2 ± 3.1 ng/ml), [Formula: see text] (premenopausal = 272.6 ± 107.3 ng·h/ml, postmenopausal = 58.8 ± 16.6 ng·h/ml), and [Formula: see text] (premenopausal = 366.1 ± 169, postmenopausal = 66.4 ± 12.9 ng·h/ml) of rosuvastatin were significantly higher ($p < 0.05$) in premenopausal compared with postmenopausal women. The Vd/F of rosuvastatin was significantly higher ($p < 0.05$) in postmenopausal women compared with women, and CL/F was also significantly ($p < 0.05$) faster in

postmenopausal women when compared at the 95 % confidence interval. CONCLUSION: Rosuvastatin plasma level was significantly higher in premenopausal compared with postmenopausal women, which raises the question whether the latter are getting due therapeutic results, as after the menopause women experience more frequent cardiovascular problems and dyslipidemia.

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Novel use of the ovarian follicular pool to postpone menopause and delay osteoporosis.

Andersen CY, Kristensen SG.

Life expectancy has increased by more than 30 years during the last century and continues to increase. Many women already live decades in menopause deprived of naturally produced oestradiol and progesterone, leading to an increasing incidence of menopause-related disorders such as osteoporosis, cardiovascular diseases and lack of general well-being. Exogenous oestradiol has traditionally been used to alleviate menopause-related effects. This commentary discusses a radical new method to postpone menopause. Part of the enormous surplus of ovarian follicles can now be cryostored in youth for use after menopause. Excision of ovarian tissue will advance menopause marginally and will not reduce natural fertility. Grafted tissue restores ovarian function with circulating concentrations of sex steroids for years in post-menopausal cancer survivors. Future developments may further utilize the enormous store of ovarian follicles. Currently, the main goal of ovarian cryopreservation is fertility preservation, but grafting of ovarian tissue may also serve endocrine functions as a physiological solution to prevent the massive medical legacy of osteoporosis and menopause-related conditions in the ageing population. This intriguing solution is now technically available; the question is whether this method qualifies for postponing menopause, perhaps initially for those patients who already have cryostored tissue?

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Prevalence of Low Bone Mass and Osteoporosis in Long-Term Users of the Injectable Contraceptive Depot Medroxyprogesterone Acetate.

Modesto W, Bahamondes MV, Bahamondes L.

BACKGROUND: Bone mineral density (BMD) loss among depot medroxyprogesterone acetate (DMPA) users is a controversial issue. Aspects under debate include whether the number of years of use has any effect on continuous BMD loss, whether this loss will stabilise over the years of use or if it will progress to low bone mass, osteoporosis and an increased fracture risk. The aim of this study was to compare the difference in osteoporosis and low bone mass between DMPA and copper intrauterine device (Cu-IUD) users. METHODS: This was a cross-sectional study that evaluated BMD at the lumbar spine and femoral neck in 47 long-term DMPA users and 41 Cu-IUD users as control group. BMD was measured by dual-energy X-ray absorptiometry. The participants were 27 to 57 years of age, had used either DMPA or a Cu-IUD uninterruptedly for at least ten years, had initiated use of the method prior to 40 years of age and had follicle stimulating hormone values <40 mIU/mL. RESULTS: Findings showed that 68.1% and 36.6% of the DMPA and Cu-IUD users, respectively, had low bone mass and 29.8% and 2.4% of DMPA and Cu-IUD users, respectively, had osteoporosis. BMD decreased as the number of years of DMPA use increased. CONCLUSION: Long-term DMPA use was associated with low bone mass and osteoporosis in women who had used the method for 10 years or more. DMPA users with longer time of use showed a greater bone mass loss.