Selección de Resúmenes de Menopausia

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Denosumab versus romosozumab for postmenopausal osteoporosis treatment

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Denosumab and romosozumab, a recently approved new drug, are effective and widely known molecular-targeted drugs for postmenopausal osteoporosis treatment. However, no studies have directly compared their therapeutic effects or safety in postmenopausal osteoporosis. This retrospective observational registry study compared the efficacy of 12-month denosumab or romosozumab treatment in postmenopausal osteoporosis patients. The primary outcome was the change in bone mineral density (BMD) at the lumbar spine. Secondary outcomes included BMD changes at the total hip and femoral neck, changes in bone turnover markers, and adverse events. Propensity score matching was employed to assemble patient groups with similar baseline characteristics. Sixty-nine patients each received either denosumab or romosozumab for 12 months. The mean 12-month percentage change from baseline in lumbar spine BMD was 7.2% in the denosumab group and 12.5% in the romosozumab group, indicating a significant difference between the groups. The percentage changes in BMD at both the total hip and femoral neck were also significantly higher at 12 months in the romosozumab group than in the denosumab group. In denosumab patients, bone formation and bone resorption markers were significantly decreased at 6 and 12 months from baseline. In the romosozumab group, the bone formation marker was significantly increased at 6 months and then returned to baseline, while the bone resorption marker was significantly decreased at both time points. Adverse events were few and predominantly minor in both groups, with no remarkable difference in the incidence of new vertebral fractures. Romosozumab showed a higher potential for improving BMD than denosumab in this clinical study of postmenopausal osteoporosis patient treatment.

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Influence of the menopausal transition on polysomnographic sleep characteristics: A longitudinal analysis

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Study objectives: To evaluate how change in menopausal status related to spectral analysis and polysomnographic measures of sleep characteristics. Methods: The Study of Women's Health Across the Nation (SWAN) Ancillary Sleep Study evaluated sleep characteristics of 159 women who were initially pre- or early perimenopausal and repeated the assessment about 3 ½ years later when 38 were pre- or early perimenopausal, 31 late perimenopausal, and 90 postmenopausal. Participants underwent in-home ambulatory polysomnography for 2 to 3 nights. Average EEG power in the delta and beta frequency bands was calculated during NREM and REM sleep, and sleep duration, wake after sleep onset (WASO), and apnea hypopnea index (AHI) were based on visually-scored sleep. Results: The women who transitioned to postmenopause had increased beta NREM EEG power at the second assessment, compared to women who remained pre-or early premenopausal; no other sleep measures varied by change in menopausal status. In multivariate models the associations remained; statistical controls for self-reported hot flashes did not explain findings. In secondary analysis, NREM beta power at the second assessment was greater among women who transitioned into the postmenopause after adjustments for initial NREM beta power. Conclusions: Sleep duration and WASO did not vary by menopause transition group across assessments. Consistent with prior cross-sectional analysis, elevated beta EEG power in NREM sleep was apparent among women who transitioned to postmenopause, suggesting that independent of self-reported hot flashes, the menopausal transition is associated with physiological hyperarousal during sleep.

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Age at Menopause and Risk of Ischemic and Hemorrhagic Stroke

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Background and purpose: The few epidemiological studies that addressed the association between age at menopause and ischemic and hemorrhagic stroke risk in women had conflicting findings. We aimed to investigate whether age at (natural and surgical) menopause is a risk factor for total, ischemic, and hemorrhagic stroke in women. Methods: We analyzed data from 16 244 postmenopausal women, aged 26 to 70 years at recruitment who were enrolled in the

European Prospective Investigation into Cancer and Nutrition-Netherlands cohort between 1993 and 1997. Participants were followed for the occurrence of stroke until January 1, 2011. At baseline, participants filled in questionnaires about health, reproductive history including age at menopause, diet, and lifestyle. Cox regression was used to investigate the association between age at menopause and stroke. All analyses were adjusted for age, smoking, systolic blood pressure, and body mass index. Results: Mean age of menopause was 46.4 (7.0) years. A total of 830 strokes (571 ischemic, 162 hemorrhagic, 97 unclassified) were identified. Earlier menopause was associated with an increased risk of total stroke. Compared with women who experienced menopause between 50 and 54 years old, women who underwent menopause before age 40 years had 1.48× higher risk (95% CI, 1.19-1.85) of total stroke. In continuous analyses, we observed a 2% lower total stroke risk for each year menopause was delayed (hazard ratio, 0.98 [95% CI, 0.97-0.99]). The risk between earlier menopause and stroke was confined to ischemic stroke, earlier menopause was not associated with hemorrhagic stroke. The association with age at menopause was stronger for natural menopause (hazard ratio <40 versus 50-54 years, 1.74 [95% CI, 1.12-2.70]) than for surgical menopause (hazard ratio <40 versus 50-54 years, 1.26 [95% CI, 0.84-1.89]). Conclusions: The risk of total and ischemic stroke decreased with an increase in age at menopause. Whether this should have clinical consequences such as intensified risk factor control should be subject of further studies.

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Vitamin D Boosts Alendronate Tail Effect on Bone Mineral Density in Postmenopausal Women with Osteoporosis

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Vitamin D modulates bisphosphonate (BP) efficacy, but its contribution to bone mineral density (BMD) after BP discontinuation is not known. To address this topic, we performed a retrospective analysis of postmenopausal women exposed to alendronate (ALN) to treat osteoporosis who regularly continued the supplementation of cholecalciferol or calcifediol at recommended doses. In the ninety-six recruited women (age 61.1 ± 6.9 years), ALN was administered for 31.2 ± 20.6 months and then discontinued for 33.3 ± 18.9 months. The modification of 25(OH)D serum levels over time was associated with a change of alkaline phosphatase (r = -0.22, p = 0.018) and C-terminal collagen type 1 telopeptide (r = -0.3, p = 0.06). Women in the tertile of the highest increase in 25(OH)D level showed a 5.7% BMD gain at lumbar spine, that was twice as great in comparison with participants with a lower 25(OH)D variation. At a multiple regression analysis, BMD change was associated with time since menopause (ß = 2.28, SE 0.44, p < 0.0001), FRAX score for major fracture (ß = -0.65, SE 0.29, p = 0.03), drug holiday duration (ß = -2.17, SE 0.27, p < 0.0001) and change of 25(OH)D levels (ß = 0.15, SE 0.03, p = 0.0007). After ALN discontinuation, improving the vitamin D status boosts the ALN tail effect on BMD

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Estetrol Combined to Progestogen for Menopause or Contraception Indication Is Neutral on Breast Cancer

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Given the unequivocal benefits of menopause hormone therapies (MHT) and combined oral contraceptives (COC), there is a clinical need for new formulations devoid of any risk of breast cancer promotion. Accumulating data from preclinical and clinical studies support that estetrol (E4) is a promising natural estrogen for MHT and COC. Nevertheless, we report here that E4 remains active on the endometrium, even under a dose that is neutral on breast cancer growth and lung metastasis dissemination. This implies that a progestogen should be combined with E4 to protect the endometrium of non-hysterectomized women from hyperplasia and cancer. Through in vivo observations and transcriptomic analyses, our work provides evidence that combining a progestogen to E4 is neutral on breast cancer growth and dissemination, with very limited transcriptional impact. The assessment of breast cancer risk in patients during the development of new MHT or COC is not possible given the requirement of long-term studies in large populations. This translational preclinical research provides new evidence that a therapeutic dose of E4 for MHT or COC, combined with progesterone or drospirenone, may provide a better benefit/risk profile towards breast cancer risk compared to hormonal treatments currently available for patients.

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Changes in Regional Fat Distribution and Anthropometric Measures Across the Menopause Transition

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Context: The relation between the menopause transition (MT) and changes in regional fat distribution is uncertain. Objective: To determine whether the MT is associated with the development of central adiposity. Design: Longitudinal analysis from the Study of Women's Health Across the Nation, spanning 1996-2013 (median follow-up 11.8 years). Setting: Community-based. Participants: 380 women with regional body composition measures by dual energy X-ray absorptiometry. Mean baseline age was 45.7 years; racial/ethnic composition was 16% Black, 41% Japanese and 43% White. Outcomes: Changes in android, gynoid and visceral fat and waist and hip circumferences. Results: Android fat increased by 1.21% per year (py) and 5.54% py during premenopause and the MT, respectively (each $p<0.05$). Visceral and gynoid fat began increasing at the MT, annualized changes were 6.24% and 2.03%, respectively (each $p <0.05$). Postmenopausal annual trajectories decelerated to 1.47% (visceral), 0.90% (android), and -0.87% (gynoid), (all non-zero, $p <0.05$). Waist girth grew during premenopause (0.55% py), the MT (0.96% py), and postmenopause (0.55% py) (all non-zero, $p<0.05$; not statistically different from each other). Hip girth grew during premenopause (0.20% py) and the MT (0.35% py) (each non-zero, $p<0.05$; not statistically different from each other) and decelerated to zero slope in postmenopause. Results are for the White referent; there were statistically significant differences in some trajectories in Black and Japanese women. Conclusions: The MT is associated with the development of central adiposity. Waist or hip circumferences are less sensitive to changes in fat distribution.

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Exercise and estrogen: common pathways in Alzheimer's disease pathology

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Alzheimer's disease (AD) is a neurodegenerative disease that is characterized by progressive declines in cognitive function. Current epidemiological data indicates significant sex-linked disparities, where females have a higher risk of developing AD compared to male counterparts. This disparity necessitates further investigations to uncover the pathological and molecular factors influencing these sex differences. Although the underlying pathways behind this observed disparity remain elusive, recent research points to menopausal estrogen loss as a potential factor. Estrogen holds a significant role in APP processing as well as overall neuronal health through the regulation of brain derived neurotrophic factor (BDNF) - a factor that is also reduced in post-menopausal women. BDNF is a known contributor to neuronal health, and its reduced expression is typically linked to AD disorders. Exercise is known to increased BDNF and may provide an accessible activity for post-menopausal women to reduce their risk of AD. This review aims to discuss the relationship between estrogen, exercise, and BDNF in AD pathology.