Selección de Resúmenes de Menopausia

Semana del 18 al 24 de junio, 2025
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Hippocampal Subfields in Aging: Sex-specific Trajectories in Structure and Hemodynamics

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Sex differences in hippocampal aging have been increasingly recognized, with females showing greater vulnerability to neurodegeneration, particularly after menopause. However, the underlying neurobiological mechanisms remain unclear, especially at the level of hippocampal subfields. Leveraging high-resolution T1-, T2-weighted, and multi-delay arterial spin labeling MRI from 650 adults in the Human Connectome Project-Aging dataset, we examined sex-specific alterations in hippocampal subfield volume, arterial transit time (ATT), and cerebral blood flow (CBF) across the adult lifespan. All hippocampal subfields showed age-related atrophy and ATT prolongation. An age × sex interaction effect on ATT was observed in CA1 and CA2, indicating that age-related increases in ATT were more pronounced in females than in males in these subfields. Moreover, females exhibited more pronounced hippocampal subfields CBF reductions with aging and atrophy, while males showed relatively preserved CBF, with an increase in subiculum perfusion. Furthermore, CA1 showed the lowest perfusion and the strongest association with atrophy among hippocampal subfields. To investigate the potential impact of menopausal hormonal changes on sex-specific patterns, we explored the hypothalamic structure and hemodynamic alterations during aging and their effects on the hippocampus, given that hypothalamus regulates gonadal hormone secretion through the hypothalamic-pituitary-gonadal axis. We found significant hypothalamic atrophy during aging in both sexes, accompanied by ATT prolongation exclusively in females, which was associated with hippocampal atrophy and impaired hemodynamics. Our study highlights the intricate interplay between hippocampal structure and vascular function, revealing sex- and subfield-specific aging trajectories. These findings provide a normative quantitative imaging reference to age-related neurodegenerative diseases such as Alzheimer's Disease.

Migraine through puberty and menopausal transition-data from the population-based Norwegian Women and Health study (NOWAC)

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Background and purpose: Migraine considerably affects women during their reproductive years. This cross-sectional study uses data from the Norwegian Women and Health study (NOWAC) and investigates the typical age at migraine onset and cessation in women and assesses how reproductive milestones affect migraine patterns. Methods: 4825 women with a history of migraine were included in the study. Participants completed a questionnaire that procured detailed information on their migraine characteristics and reproductive histories. Results: Average ages at migraine onset and cessation were 27.8 and 49.7 years, respectively. Migraine onset after age 50 was reported in 9.2% of the participants. Although 80.7% reported cessation before age 60, 46.3% continued to experience migraines postmenopause. Women with migraine with aura were more likely to report migraine onset before menarche than those with migraine without aura. Conclusion: Migraines usually resolve during the fifth decade of a woman's life and menstruation cessation does not necessarily equate to migraine cessation, as almost half of the women continued to experience migraines postmenopause, and one in five after 60 years. Migraine symptom persistence in a significant proportion of postmnopausal women underscores the need for continued management and research on the factors influencing migraine prevalence in later life stages.

Global burden and trends of musculoskeletal disorders in postmenopausal elderly women: a 1990-2021 analysis with projections to 2045

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Background: The global burden and trend of musculoskeletal disorders (MSDs) in postmenopausal women (PMW) remain unclear. Methods: Using the Global Burden of Disease (GBD) 2021 data, this study assessed the prevalence and disability-adjusted life years (DALYs) for rheumatoid arthritis (RA), osteoarthritis (OA), low back pain (LBP), neck pain (NP), gout, and other musculoskeletal conditions (OMSKDs) from 1990 to 2021. Bayesian Age-Period-Cohort (BAPC) models projected trends to 2045. Health inequalities were analyzed using the Slope Index of Inequality (SII) and the Concentration Index, with decomposition methods identifying the drivers of burden changes. Results: From 1990 to 2021, the age-standardized prevalence and DALYs rates have significantly increased among PMW, with OA and LBP being the primary contributors to this burden. These increases were primarily driven by population growth. Specifically, RA, OA, and gout accounted for more than 50% of the total burden in women across all age groups, with RA burden being 1.2 times higher than that in premenopausal women, OA 3.1 times higher, and gout 2.9 times higher. Notably, in PMW, the burden of gout was 74%. The burden of gout is strongly correlated with the Socio-Demographic Index (SDI), particularly in high-income regions, such as North America, where the United States exhibits the highest DALYs rates. Furthermore, projections indicate that by 2045, the global burden of MSDs could double, with OA potentially affecting nearly 50% of the PMW. Conclusion: From 1990 to 2021, the global burden of MSDs among PMW has risen significantly, with notable regional disparities underscoring the critical need for tailored preventive strategies to alleviate the worldwide impact of these conditions.

Positive Effect of Yerba Mate (Ilex paraguariensis) Consumption on Bone Mineral Density in Postmenopausal Women Assessed by Dual Energy X-Ray Absorptiometry-Based 3-Dimensional Modeling

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Background: Yerba mate (YM) drinking is associated with higher lumbar spine and femoral neck bone mineral density (BMD) in postmenopausal women. We analyzed its effect on total hip BMD and reported the contribution of the trabecular and cortical components to this effect. Methods: A control group of 147 non-drinkers was compared to 153 YM drinkers. Left hip BMD was measured using dual energy X-ray absorptiometry (DXA), and three-dimensional (3D)-Shaper software was used to estimate integral volumetric BMD (vBMD), cortical surface BMD (sBMD), and trabecular vBMD through 3D modeling. Results: No significant difference was found between groups in either age (p=0.746) or body mass index (BMI; p=0.329). The YM group had significantly higher total hip BMD, integral vBMD, cortical sBMD, and trabecular BMD (all p<0.0001). The frequency of DXA-based osteoporosis diagnosis was lower in YM drinkers (3.3% vs. 10.9%; odds ratio [OR], 0.276). The rate of low-impact fractures was significantly reduced in YM drinkers (5.9% vs. 12.9%; OR, 2.197). Linear regression analyses revealed that cortical and trabecular parameters correlated positively with BMI and negatively with age in both groups. The slope of the lines did not differ between groups, but the elevation was uniformly higher in the YM group (p=0.0004 to p<0.0001). Conclusions: Our study provides novel insights into YM consumption and bone health in postmenopausal women. We confirm its positive association with BMD and demonstrate, for the first time, that both cortical and trabecular compartments contribute to this effect. Our findings also suggest a potential protective role of YM against osteoporosis and fragility fractures.

Menopause in low and middle-income countries: a scoping review of knowledge, symptoms and management

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Objective: This study aimed to systematically map available evidence on menopause-related knowledge, symptoms and management in low and middle-income countries (LMICs) and identify critical gaps to inform research and policy. Methods: Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Review (PRISMA-ScR) guidelines, the MEDLINE, EMBASE, CINAHL and Scopus databases were searched for studies published between 2000 and 2024. Eligible studies were those that reported on menopause-related knowledge, symptom prevalence or management in LMICs. Data were extracted and synthesised descriptively and thematically. Results: From 10,758 records, 252 studies from 41 LMICs were included. Most were cross-sectional (85%) and relied on non-probability sampling (62%), with only 4% being nationally representative. Menopause classification methods

were often inconsistent, with only 17.5% of studies using the Stages of Reproductive Aging Workshop (STRAW) +10 or World Health Organization (WHO) criteria. National-level data on age at menopause are lacking across all LMICs. The prevalences of vasomotor symptoms, joint pain and sexual concerns were comparable with high-income countries. However, data on the severity and burden of symptoms were scarce. Knowledge about menopause and menopausal hormone therapy (MHT) was poor, especially in low-income and rural settings. Cultural stigma, misconceptions and healthcare provider knowledge gaps contributed to low uptake of evidence-based menopause care. MHT use was consistently low, with women predominantly using traditional remedies. Provider hesitancy, lack of training and structural health system barriers were key limitations in service delivery. Conclusions: Despite a growing population of postmenopausal women, menopause remains a neglected health issue across LMICs. There is an urgent need to integrate menopause into reproductive and non-communicable disease policies, invest in provider education and ensure equitable access to evidence-based menopause care, including MHT, for women in LMICs.

Hormone therapy and insulin resistance in non-diabetic postmenopausal women: a systematic review and meta-analysis

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Objective: Menopause increases the risk of insulin resistance and cardiometabolic diseases. This study summarizes the effects of hormone therapy (HT) on insulin resistance in non-diabetic postmenopausal women. Method: The study analyzed randomized controlled trials (1998-2024) that assessed the impact of HT on insulin resistance using homeostasis model assessment of insulin resistance (HOMA-IR) in non-diabetic postmenopausal women. Raw mean differences (RMDs) with 95% confidence intervals (CIs) were calculated using a random-effects model. Subgroup analysis compared estrogen alone (E alone) and estrogen plus progestogen (E + P) to placebo. Results: Seventeen randomized controlled trials with 5772 women (3644 on HT: E alone [n = 1259] or E + P [n = 2385]; 2128 on placebo) were included. The weighted mean (standard deviation) age was 56.91 (5.95) years, with treatment lasting 8 weeks to 3 years. HT significantly reduced HOMA-IR (RMD = -0.24 [-0.32 to -0.16], p < 0.001, I2 = 60.3%). Subgroup analysis showed reductions in both E alone (RMD = -0.42 [-0.55 to -0.29], p < 0.001, I2 = 35%) and E + P (RMD= -0.14 [-0.23 to -0.04], p = 0.005, I2 = 13.7%) compared to placebo. Conclusion: HT significantly lowers insulin resistance in healthy, non-diabetic postmenopausal women, with E alone yielding greater reductions than combination therapy.

Exploring Mirena use in association with symptoms at midlife

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Objective: The Mirena IUD is prescribed for the treatment of heavy menstrual bleeding and contraception. The purpose of this study was to examine the use of Mirena in relation to vasomotor, psychological, musculoskeletal, and sexual symptoms and to see whether the use of a Mirena IUD increased the likelihood of experiencing symptoms during the menopause transition. Methods: Data were drawn from a study of brown adipose tissue and hot flashes (n=274). Participants were aged 45-55, living in western Massachusetts. Twenty-three (8%) were using Mirena at the time of the interview. Nine symptoms were examined individually and after grouping into clusters by factor analysis. Following bivariate analyses, logistic regressions were used to examine the use of Mirena in relation to hot flashes, night sweats, leg cramps, aches/stiffness, backaches, and depressed mood, while adjusting for age and BMI. We did not adjust for menopausal status because the use of Mirena influenced menstruation, which inhibited accurate estimation of menopausal status. Results: There were no significant relationships between the use of Mirena and symptoms at midlife. Higher BMI increased the likelihood of hot flashes, night sweats, and leg cramps. Conclusions: These findings suggest that the use of the Mirena IUD, whether for treatment of heavy blood loss, contraceptive control, or for the management of other menstrual symptoms, is unlikely to have adverse effects on symptom experience in midlife.