



Selección de Resúmenes de Menopausia

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María Soledad Vallejo. Obstetricia Ginecología. Hospital Clínico. Universidad de Chile

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When is it necessary to perform biopsy in asymptomatic postmenopausal women with incidental finding of thickened endometrium?

Jing Wang 1, Xuebing Peng 1, Enlan Xia, Yu Xiao, Yuhuan Liu, Dan Su, Jianfeng Xu, Tin-Chiu Li, Xiaowu Huang. Objective: To determine the cutoff value for endometrial thickness (ET) that prompts a biopsy in asymptomatic postmenopausal women with an incidental finding of thickened endometrium, and to develop a risk prediction model. Methods: This is a retrospective cohort analysis of the clinical records of the Hysteroscopic Center of Fu Xing Hospital, Capital Medical University, Beijing, China. We collected asymptomatic postmenopausal women who presented with an ET of ≥ 4 mm (double-layer) as an incidental finding. We stratified the participants into non-malignant and malignant groups based on pathology results and assessed differences between the two groups. A receiver operating characteristic curve (ROC) was used to identify the cutoff value of ET for predicting endometrial malignancy. Logistic regression models were also constructed to predict the risk of malignancy. Results: A total of 581 consecutive eligible cases were included. The optimal cutoff value for ET was 8 mm, with a maximum area under the curve (AUC) of 0.755 (95 % CI: 0.645-0.865). In addition to ET, the regression model incorporated diabetes, blood flow signal, BMI, and hypertension to predict the risk of malignancy. A ROC curve constructed for the model yielded an AUC of 0.834 (95 % CI: 0.744-0.924). Conclusion: It is reasonable to offer hysteroscopy and visually-directed endometrial biopsy for asymptomatic postmenopausal women when ET is 8 mm or above. For those with an ET between 4 and 8 mm, further decision to perform biopsy should be determined on an individual basis, considering risk factors and blood flow signals of the endometrium.

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Endocrine Dyscrasia in the Etiology and Therapy of Alzheimer's Disease

Tracy Butler 1, Sin-Ruow Tey 2, James E Galvin 3, George Perry 4, Richard L Bowen 5, Craig S Atwood 6 7

The increase in the incidence of dementia over the last century correlates strongly with the increases in post-reproductive lifespan during this time. As post-reproductive lifespan continues to increase it is likely that the incidence of dementia will also increase unless therapies are developed to prevent, slow or cure dementia. A growing body of evidence implicates age-related endocrine dyscrasia and the length of time that the brain is subjected to this endocrine dyscrasia, as a key causal event leading to the cognitive decline associated with aging and Alzheimer's disease (AD), the major form of dementia in our society. In particular, the elevations in circulating gonadotropins, resulting from the loss of gonadal sex hormone production with menopause and andropause, appear central to the development of AD neuropathology and cognitive decline. This is supported by numerous cell biology, preclinical animal, and epidemiological studies, as well as human clinical studies where suppression of circulating luteinizing hormone and/or follicle-stimulating hormone with either gonadotropin-releasing hormone analogues, or via physiological hormone replacement therapy, has been demonstrated to halt or significantly slow cognitive decline in those with AD. This review provides an overview of past and present studies demonstrating the importance of hypothalamic-pituitary-gonadal hormone balance for normal cognitive functioning, and how targeting age-related endocrine dyscrasia with hormone rebalancing strategies provides an alternative treatment route for those with AD.

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Experiences of menopausal transition among populations exposed to chronic psychosocial stress in the United States: a scoping review

Emma A Blackson # 1 2, Christina McCarthy # 3, Caryn Bell 4, Shokufeh Ramirez 4 5, Alessandra N Bazzano 4 5

Background: The transition to menopause is a significant event affecting health, well-being, and quality of life. Menopause typically occurs between the ages of 44-57, accompanied by symptoms such as hot flashes, mood changes, and sleep disturbances. Being postmenopausal also increases the risk of cardiovascular disease, stroke, and osteoporosis. Despite its importance, menopause is under-researched and under-discussed, particularly concerning the impact of chronic psychosocial stress. **Methods:** A scoping review of qualitative, quantitative, and mixed methods research was conducted to map existing literature on the transition to menopause among populations experiencing chronic psychosocial stress in the United States. The review followed the PRISMA-ScR methodology, systematically searching literature in PubMed and SCOPUS databases using MeSH terms. Studies were included which focused on menopausal symptoms and psychosocial stressors. Data extraction and charting were performed using Covidence software. **Results:** Fifteen studies were included, highlighting relationships between socioeconomic status, intimate partner violence, childhood abuse, and racial disparities which influenced menopausal experiences. Lower- income, higher perceived stress, and negative attitudes towards menopause were associated with increased psychological and somatic symptoms and early onset of menopause (prior to age 45). African American women were found to experience earlier onset and more severe vasomotor symptoms compared to their White counterparts. Women veterans used hormone therapy more frequently than the general population, particularly those with mood or anxiety disorders. The review also identified a geographic bias, with most studies conducted in the Northeast, Midwest, and Western regions of the United States. **Conclusions:** This review underscores the necessity of considering social, cultural, and environmental factors in understanding menopausal experiences and addressing health disparities. Future research should aim to include diverse populations and adopt longitudinal and qualitative study designs to capture the dynamic nature of menopausal experiences. Policies and interventions directed at improving the well-being of women experiencing menopause in the context of chronic psychosocial stress are warranted.

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Analysis of combinatory effects of free weight resistance training and a high-protein diet on body composition and strength capacity in postmenopausal women - A 12-week randomized controlled trial

Paulina Ioannidou 1, Zsuzsanna Dóró 2, Jan Schalla 3, Wim Wätjen 2, Patrick Diel 4, Eduard Isenmann 5

Background: Menopause has a significant impact on the endocrine system of middle-aged women, resulting in a loss of skeletal muscle mass (SMM), changes in fat mass (FM) and a reduction in strength capacity. Resistance training (RT) and a high-protein diet (HPD) are effective methods for maintaining or increasing SMM. This study aims to determine the effects of HPD and RT on body composition, muscle thickness and strength capacity in postmenopausal women. **Methods:** In total 55 healthy postmenopausal women (age: 58.2 ± 5.6 years, weight 69.1 ± 9.6 kg, height 166.5 ± 6.5 cm) successfully participated in the study. The women were randomly assigned to either group: training + protein (2.5 g/kg fat-free mass (FFM)) (n = 15; TP); only training (n = 12; T); only protein (2.5 g/kg FFM) (n = 14; CP) or control (n = 14; C). TP and T performed RT for 12 weeks with three training sessions and five exercises each. CP and C were prohibited from training during the period. The main parameters analysed for body composition were FFM, SMM, FM, muscle thickness of the M. rectus femoris, M. biceps femoris, M. triceps brachii and M. biceps brachii muscles. Strength was tested using a dynamometer for grip strength and 1-RM in the squat (BBS) and deadlift (DL). **Results:** The SMM significantly increased by RT (TP: ($\Delta+1.4 \pm 0.9$ kg; $p < 0.05$; $d = 0.4$; T: $\Delta+1.2 \pm 1.3$ kg; $p < 0.05$; $d = 0.3$) and FM could be reduced only in T: ($\Delta-2.4 \pm 2.9$ kg; $p < 0.05$; $d = 0.3$). In muscle thickness a significant increase in the M. biceps brachii in both training groups (TP: ($\Delta+0.4 \pm 0.3$ cm; $p < 0.05$; $d = 1.6$; T: ($\Delta+0.3 \pm 0.3$ cm; $p < 0.05$; $d = 0.9$) and in M. biceps femoris only in TP ($\Delta+0.3 \pm 0.4$ cm; $p < 0.05$; $d = 0.9$) were observed. HPD without training does not affect body composition, A significant increase in grip strength (TP: $\Delta+4.7 \pm 2.4$ kg; ($p < 0.05$; $d = 1.5$; T: ($\Delta+3.6 \pm 3.0$ kg; $p < 0.05$; $d = 0.8$), in BBS (TP: ($\Delta+30.0 \pm 14.2$ kg; $p < 0.05$; $d = 1.5$; T: ($\Delta+34.0 \pm 12.0$ kg; $p < 0.05$; $d = 2.4$) and in DL (TP: ($\Delta+20.8 \pm 10.3$ kg; $p < 0.05$; $d = 1.6$; T: ($\Delta+22.1 \pm 7.6$ kg; $p < 0.05$; $d = 2.0$) was observed in both training groups. The CP also recorded a significant increase in the BBS ($\Delta+7.5 \pm 5.4$ kg; $p < 0.05$; $d = 0.4$) and in DL ($\Delta+5.5 \pm 7.7$ kg; $p < 0.05$; $d = 0.5$). No significant differences were detected for TP and T for any of the parameters. **Conclusion:** The results indicate that RT enhances body composition and strength capacity in postmenopausal women and is a preventive strategy against muscle atrophy. Besides HPD without training has a trivial significant effect on BBS and DL. HPD with RT has no clear additive effect on body composition and strength capacity. Further studies are needed to confirm these observations.

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Leukocyte telomere length and memory circuitry and cognition in early aging: Impact of sex and menopausal status

Kyoko Konishi 1, Emily G Jacobs, Sarah Aroner, Immaculata De Vivo, Brianna Smith, Blair Scribner-Weiss, et al. Telomere length (TL) is an important cellular marker of biological aging impacting the brain and heart. However, how it is related to the brain (e.g., cognitive function and neuroanatomic architecture), and how these relationships may vary by sex and reproductive status, is not well established. Here we assessed the association between leukocyte TL and memory circuitry regional brain volumes and memory performance in early midlife, in relation to sex and reproductive status. Participants (N = 198; 95 females, 103 males; ages 45-55) underwent structural MRI and neuropsychological assessments of verbal, associative, and working memory. Overall, shorter TL was associated with smaller white matter volume in the parahippocampal gyrus and dorsolateral prefrontal cortex. In males, shorter TL was associated with worse working memory performance and corresponding smaller white matter volumes in the parahippocampal gyrus, anterior cingulate cortex, and dorsolateral prefrontal cortex. In females, the impact of cellular aging was revealed over the menopausal transition. In postmenopausal females, shorter TL was associated with poor associative memory performance and smaller grey matter volume in the right hippocampus. In contrast, TL was not related to memory performance or grey and white matter volumes in any memory circuitry region in pre/perimenopausal females. Results demonstrated that shorter TL is associated with worse memory function and smaller volume in memory circuitry regions in early midlife, an association that differs by sex and reproductive status. Taken together, TL may serve as an early indicator of sex-dependent brain abnormalities in early midlife.

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Association between type of menopause and mild cognitive impairment: The REDLINC XII study

María T Espinoza 1, Juan E Blümel 2, Peter Chedraui 3, María S Vallejo 4, Mónica Ñañez 5, Eliana Ojeda 6, Claudia Rey 7, Doris Rodríguez 8, Marcio A Rodrigues 9, Carlos Salinas 10, Konstantinos Tserotas 11, Andrés Calle 12, Maribel Dextre 13, Alejandra Elizalde 14, Carlos Escalante 15, Gustavo Gómez-Tabares 16, Álvaro Monterrosa-Castro 17

Objective: To evaluate the association between type of menopause (spontaneous or surgical) and mild cognitive impairment (MCI). **Study design:** This study was a cross-sectional, observational, and sub-analytical investigation conducted within gynecological consultations across nine Latin American countries. **Method:** We assessed sociodemographic, clinical, and anthropometric data, family history of dementia, and the presence of MCI using the Montreal Cognitive Assessment (MoCA) tool. **Results:** The study involved 1185 postmenopausal women with a mean age of 55.3 years and a body mass index of 26.4 kg/m². They had an average of 13.3 years of education, and 37 % were homemakers. Three hundred ninety-nine experienced menopause before 40, including 136 with surgical menopause (bilateral oophorectomy). Out of the 786 women who experienced menopause at 40 or more years, 110 did so due to bilateral oophorectomy. There were no differences in MoCA scores among women who experienced menopause before or after the age of 40. However, lower MoCA scores were observed in women with surgical menopause than in those with spontaneous menopause (23.8 ± 4.9 vs. 25.0 ± 4.3 points, respectively, $p < 0.001$). Our logistic regression model with clustering of patients within countries found a significant association between MCI and surgical menopause (OR 1.47, 95 % CI: 1.01-2.16), use (ever) of menopausal hormone therapy (OR 0.33, 95 % CI: 0.21-0.50), and having >12 years of education (OR 0.21, 95 % CI: 0.14-0.30). **Conclusion:** When comparing women who experience spontaneous menopause over the age of 40 with those who undergo it before this age, there was no observed increased risk of developing MCI, while those with surgical menopause, independent of age, are more prone to cognitive decline. Women who have ever used menopausal hormone therapy have a lower MCI risk. Further research is warranted to delve deeper into this topic.

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Systematic review and meta-analysis of the effects of progestins on depression in post-menopausal women: An evaluation of randomized clinical studies that used validated questionnaires

Ambrogio P Londero 1, Veronica Gallina 2, Francesca Cremonini 3, Anjeza Xholli 4, Angelo Cagnacci 3

Objective: Hormone therapy (HT) can relieve symptoms of menopause and treat chronic diseases. Its effectiveness in treating psychological symptoms is still debated. Several progestins can be used in HT, but their effects on mood, in

particular depressive symptoms, is still unclear. This systematic review evaluates the evidence from randomized clinical trials with postmenopausal women on the effect of adjunctive progestins on symptoms of depression assessed by validated questionnaires. The primary aim was to evaluate scores on the Center for Epidemiologic Studies Depression Scale (CES-D). The secondary aim was to assess scores on the Beck Depression Inventory (BDI), the Hamilton Depression Rating Scale (HAM-D), and the Zung Self-Rating Depression Scale (SDS). Methods: A systematic review and meta-analysis were conducted to identify the most reliable evidence of the effects of progestin on depression to inform decision-making. A PICO- and PRISMA-based framework was established to formulate explicit and reasoned recommendations. The pre-/post-treatment effect was evaluated using standardized mean change (SMC). Results: We selected and analyzed 16 randomized clinical trials qualitatively and 12 studies quantitatively out of 9320 items identified. Most of the studies used medroxyprogesterone acetate as progestin. The results indicate that depressive symptoms do not increase with the addition of a progestin to estrogen HT. Depressive symptoms improved over time in the progestins-estrogen HT group, independent of progestin type (SMC CES-D -0.08 CI.95-0.10/-0.06, BDI -0.19 CI.95-0.32/-0.06, HAM-D -1.13 CI.95-1.47/-0.78, and SDS -0.11 CI.95-0.82/0.60). Yet similar effects were observed with estrogens alone and did not significantly differ from control groups on placebo. In one study, the addition of fluoxetine greatly increased the reduction of depressive symptoms observed with estrogen-progestin HT. Conclusions: In summary, in randomized clinical trials using validated questionnaires adjunctive progestin with estrogens did not increase depressive symptoms of postmenopausal women. Overall, depressive symptoms decreased with estrogen-progestin HT but also with estrogen alone. The decrease was not so pronounced to differ from controls on placebo. HT does not hamper the clinical efficacy of fluoxetine. The scarcity of randomized studies makes it difficult to determine the exact effect on depressive symptoms of different types of progestins.

