

Selección de Resúmenes de Menopausia

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Body composition as an index of the trabecular bone score in postmenopausal women

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Objective: Obesity is considered to exert a protective effect on bone mineral density (BMD). However, emerging data indicate that the effect of adipose tissue on bone health is much more complex. Trabecular bone score (TBS) provides information on bone texture and predicts fracture risk independently of BMD. This study investigated the association of body composition and bone quality as evaluated by lumbar spine (LS) TBS. Study design: Cross-sectional study including 118 postmenopausal women (mean age 60.73 ± 8.97 years and mean BMI 28.36 ± 5.8) with no history of secondary osteoporosis or previous anti-osteoporotic treatment. Main outcome measures: Body composition, BMD and LS TBS were evaluated by dual-energy X-ray absorptiometry (DXA). To explore the associations among the variables of interest, Spearman's correlations were used. Simple and multiple linear regression models were also applied to explore the associations among variables of interest. Results: Visceral adipose tissue (VAT) mass, android fat mass and android/gynoid fat ratio were negative predictors of TBS (Stb = -0.413, $p < 0.001$; Stb = -0.369, $p < 0.001$; Stb = -0.333, $p < 0.001$, respectively). Similarly, both the right (Stb = -0.313, $p < 0.001$) and left arm fat mass (Stb = -0.313, $p < 0.001$) were negative predictors of TBS. In a multiple linear regression model, VAT mass exhibited a significant negative association with TBS (Stb = -0.415, $p < 0.05$). Conclusions: The present study offers evidence that VAT mass has a negative association with bone texture as estimated by TBS in postmenopausal women. Moreover, the findings suggest that the body composition of the arms (arm fat mass) correlates inversely with the bone texture. Further research is required to validate these findings in large cohorts of postmenopausal women.

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The Effectiveness of Dance Interventions on Health-Related Outcomes in Perimenopausal, Menopausal, and Postmenopausal Women: A Systematic Review and Meta-Analysis

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Background/Objectives: Dance intervention, as a non-pharmacological therapy, has shown promising potential in alleviating menopausal symptoms among perimenopausal, menopausal, and postmenopausal women. However, a systematic evaluation of its overall effectiveness based on existing trials remains unavailable. This study aims to investigate the effectiveness of dance intervention on health-related outcomes in perimenopausal, menopausal, and postmenopausal women through a systematic review and meta-analysis. Methods: This study systematically searched the relevant databases on 18 October 2024. The risk of bias was assessed using the Cochrane RoB 2 and ROBINS-I tools. Meta-analysis was performed using Review Manager version 5.4. software. For results unsuitable for meta-analysis, narrative synthesis was conducted. The study was registered in PROSPERO (number: CRD42024613134). Results: Meta-analysis demonstrated significant positive effects of dance intervention on psychological symptoms, including depression ($I^2 = 87\%$, $p < 0.001$), anxiety ($I^2 = 90\%$, $p = 0.01$), vitality ($I^2 = 0\%$, $p = 0.03$), interpersonal relationships ($I^2 = 0\%$, $p < 0.001$), and somatization ($I^2 = 85\%$, $p = 0.01$), in menopausal women, but no significant impact was observed on psychotic symptoms ($I^2 = 89\%$, $p = 0.33$). However, the high heterogeneity suggests the presence of potential confounding factors among studies. Sensitivity analysis indicated that the flexibility of the intervention protocol and intra-group differences among participants may have been the main sources of heterogeneity. Further subgroup analysis revealed that interventions conducted less than three times per week had significant effects on depressive symptoms (SMD = -1.93), while a total intervention duration of ≤ 1800 min significantly improved anxiety symptoms (SMD = -2.15). Conclusions: Dance interventions have significant positive effects on health-related outcomes in perimenopausal, menopausal, and postmenopausal women, except for psychotic symptoms, offering a promising intervention option for clinical practice.

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Associations of healthy lifestyle and accelerated aging with incident breast cancer in pre- and postmenopausal women: a population-based cohort study

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Breast cancer is one of the most common malignancies in women. This study aimed to explore the association between healthy lifestyle, biological aging and breast cancer risk in pre- and postmenopausal women. This study included 125,579 participants. Biological aging was calculated using the PhenoAge algorithm. Cox regression models and counterfactual mediation analysis was utilized. During an average follow-up of 13.65 years, 5418 breast cancers occurred. In the overall women participants, compared to the healthy lifestyle group, the HR (95% CI) for unhealthy lifestyle regarding incident breast cancer was 1.28 (1.13, 1.33). Compared to the lowest tertile of accelerated aging (AA), the HR (95% CI) for the highest tertile regarding breast cancer risk was 1.22 (1.14, 1.30). Consistent results observed only in postmenopausal participants. The joint effect of a healthy lifestyle and AA on breast cancer risk was statistically significant ($P < 0.001$). The AA-mediated breast cancer risk ratio was 17.69 (95% CI 8.19, 27.19) when comparing healthy to unhealthy lifestyles. In the study, healthy lifestyle and lower levels of AA were significantly associated with a reduced risk of breast cancer, particularly among postmenopausal women. In addition, AA mediated 17.02-17.69% of the link between lifestyle and breast cancer risk.

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Metabolic Changes in Patients with Premature Ovarian Insufficiency: Adipose Tissue Focus-A Narrative Review

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Background: Estrogen plays a crucial role in adipose tissue homeostasis, influencing fat distribution, lipid metabolism, and insulin sensitivity. Through estrogen receptor (ER) activation, particularly ER α , estradiol (E2) regulates adipogenesis, inhibits adipocyte hypertrophy, and promotes insulin signaling. It enhances lipid oxidation, reduces lipogenesis, and suppresses pro-inflammatory cytokine production, thereby maintaining metabolic health. Primary ovarian insufficiency (POI), characterized by estrogen deficiency before the age of 40, disrupts this regulatory network, leading to adverse metabolic effects. Objectives: This review examines the effects of estrogen on adipose tissue, lipid metabolism, and carbohydrate metabolism, with a particular focus on clinical evidence in women with POI. Methods: A narrative review of the metabolic alterations associated with POI, emphasizing the molecular, biochemical, and metabolic mechanisms underlying estrogen deficiency, with a special focus on adipose tissue. Results: Women with POI exhibit increased visceral fat accumulation, reduced lean mass, and alterations in adipokine secretion, resembling the metabolic phenotype of postmenopausal women. The decline in estrogen levels contributes to central adiposity, impaired lipid metabolism, and insulin resistance, exacerbating the risk of type 2 diabetes (T2D) and cardiovascular disease (CVD). The loss of estrogenic regulation leads to enhanced lipolysis in visceral fat, raising free fatty acid flux to the liver, promoting hepatic steatosis, and worsening insulin resistance. Studies indicate that POI patients have significantly higher total cholesterol, low-density lipoprotein (LDL) cholesterol, and triglycerides compared to age-matched controls, reinforcing their heightened CVD risk. Reduced sex hormone-binding globulin (SHBG) levels increase free androgen availability, aggravating central fat deposition. These metabolic disturbances can potentially accelerate atherosclerosis and vascular aging, increasing morbidity and mortality in POI patients. Conclusions: Understanding the role of estrogen in adipose tissue and its disruption in POI highlights the importance of early intervention. Although the available evidence is limited and largely extrapolated from menopause studies, strategies such as hormone replacement therapy, lifestyle modifications, and lipid profile optimization are essential to mitigate metabolic consequences and improve long-term health outcomes in women with POI.

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Severe obesity and menopause symptoms are associated with cognitive impairment in postmenopausal women from Latin America

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Objective: This study aimed to evaluate the association between obesity and cognitive impairment. Methods: This study is a sub-analysis of an observational, cross-sectional study in nine Latin American counties. Sociodemographic, clinical and anthropometric data were collected, and cognition was assessed using the Montreal Cognitive Assessment

(MoCA) tool in 722 postmenopausal women. Results: The mean age, body mass index (BMI) and years of education of the cohort were 56.9 years, 26.8 kg/m² and 13.6 years, respectively. Women with cognitive impairment, compared to those without, had a higher BMI (27.8 ± 5.9 vs. 26.6 ± 4.9 kg/m², $p = 0.037$), had more children (3.1 ± 2.4 vs. 2.5 ± 1.7 , $p = 0.023$), experienced more severe menopausal symptoms (56.3% vs. 31.9%, $p < 0.001$) and presented more comorbidities (60.0% vs. 43.8%, $p = 0.006$). They also had fewer years of study (10.8 ± 5.1 vs. 13.9 ± 4.9 years, $p = 0.001$), were less physically active (35.0% vs. 49.1%, $p = 0.018$) and were less likely to use menopausal hormone therapy (MHT) (11.3% vs. 28.8%, $p = 0.001$). In binary logistic regression analysis, BMI ≥ 35.0 kg/m² (odds ratio [OR] 2.27, 95% confidence interval [CI] 1.08-4.76) and severe menopausal symptoms (OR 2.10, 95% CI 1.29-3.43) were associated with cognitive impairment. In the model, factors related to lower risk were ever use of MHT (OR 0.44, 95% CI 0.21-0.92) and having more years of education (OR 0.38, 95% CI 0.20-0.64). Conclusion: Severe obesity and severe menopausal symptoms increased the risk of cognitive impairment in postmenopausal women, while higher education and ever use of MHT were protective factors.