Selección de Resúmenes de Menopausia

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The effects of Saline Infusion Sonography on the histological quality of endometrial sampling in women with postmenopausal bleeding

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Background: The aim of this study is to analyze the histopathological features of endometrial samples obtained by aspiration when performed before or after the saline contrast sonohysterography in women with postmenopausal bleeding and a thickened endometrium. Hypothetically, the saline infusion could disrupt the tissue and therefore affect the quality of the sample. Furthermore, we want to determine which histological features have impact on the quality of the endometrial sample. Methods: We performed a randomized controlled trial (ESPRESSO trial) in which we analyzed the aspiration samples in two groups. Women were allocated either to saline contrast sonohysterography and subsequent endometrial sampling (SCSH-Sampling group) or to the opposite order (Sampling-SCSH group). Dedicated gyneco-pathologists retrospectively assessed the specimens and recorded the type (blood, mucus, epithelium, intact glands, stroma and tissue context) and quantity (on a scale of 0-3) of material that was found in the specimens. Results: This analysis consisted of 197 samples, with 101 women in the SCSH-Sampling group and 96 women in the Sampling-SCSH group. No significant differences were found in the histological features between the two groups. All significant histological features differed significantly in the sufficient samples compared to the insufficient samples: higher amounts of blood, more endometrial epithelium, presence of intact endometrial glands, better stroma and tissue context. Oppositely, a significantly higher amount of mucus was found in the insufficient samples. Conclusion: This study shows that the histological features of the endometrial sample were not affected by the saline contrast sonohysterography, when performed prior to the tissue sampling

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Effects of exercise training on metabolic syndrome risk factors in post-menopausal women - A systematic review and meta-analysis of randomised controlled trials

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Background & aims: Alterations in the hormonal profiles as women transition to the menopause predisposes individuals to the metabolic syndrome (MetS). In post-menopausal women, this can be exacerbated by sedentary behaviour and physical inactivity. Physical activity can convey many health benefits including improvement in MetS risk factors. However, it remains to be elucidated how differing exercise intensities and its mode of delivery can ameliorate MetS risk factors and resultant progression amongst post-menopausal women. The purpose of this systematic review and meta-analysis was to investigate the effects and efficacy of exercise training on MetS risk factors in post-menopausal women. Methods: Database searches using PubMed, Scopus, Web of Science and the Cochrane Central Register of Controlled Trials were conducted from inception to December 2021 for randomised controlled studies (RCTs) investigating exercise training (>8 weeks) in at least one of the MetS risk factors in post-menopausal women. Utilising the random-effects model, appropriate standardised mean differences (SMD) or mean differences (MD) with 95% confidence interval (CI) for each MetS risk factor were used to calculate the overall effect size between the exercise and control groups. Sub-group analyses were performed for exercise intensity, modality, and duration for each risk factor. Meta-regression was performed for categorical (health status) and continuous (body mass index) covariates.Results: 39 RCTs (40 studies) involving 2132 participants were identified as eligible. Overall, the meta-analysis shows that exercise training significantly improved all MetS risk factors: waist circumference (WC) [MD: -2.61 cm; 95% CI: -3.39 to -1 .86 cm; $p < 0.001$; 21 studies]; triglycerides (TG) [SMD: -0.40 mmol/L; 95% CI: -0.71 to -0.09 mmol/L; $p = 0.01$; 25 studies]; high-density lipoprotein (HDL) [SMD: 0.84 mmol/L (95% CI: 0.41-1.27 mmol/L; $p < 0.001$; 26 studies]; fasting glucose (BG) [SMD: -0.38 mmol/L (95% CI: -0.60 to -0.16 mmol/L; $p < 0.001$; 20 studies]; systolic blood pressure (SBP) [MD: -5.95 mmHg (95% CI: -7.98 to -3.92 mmHg; $p < 0.001$; 23 studies]; and diastolic blood pressure (DBP) [MD: -4.14 mmHg (95% CI: -6.19 to -2.08 mmHg; $p < 0.001$; 23 studies]. Furthermore, sub-group analyses identified that moderate intensity and combined exercise training significantly

improved MetS risk factors ($p < 0.05$) except for HDL, with combined exercise being the most effective. Long duration (≥12 weeks) training also significantly improved MetS risk factors except for TG. Meta-regression revealed no moderating effects on any MetS risk variables. Conclusion: This study reinforces the importance of regular physical activity as a non-pharmacological tool in the reduction of MetS risk in post-menopausal women, with significant metabolic improvements seen in interventions spanning 8-10 weeks. Moderate intensity and combined training significantly benefitted abdominal obesity, dyslipidaemia, dysglycaemia and hypertension in post-menopausal women. Improvements in at least one MetS risk were also seen with other exercise modalities and intensities.

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The proportion of Thai postmenopausal women who would be eligible for anti-osteoporosis therapy

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Purpose: To determine the proportion of postmenopausal Thai women who would be classified as having high risk of fracture and eligible for anti-osteoporosis therapy according to the National Osteoporosis Foundation (NOF) criteria. Methods: Postmenopausal Thai women aged 40-90 years who had been screened for osteoporosis during 2014-2019 were recruited. Demographic data and osteoporosis risk factors were collected based on the Fracture Risk Assessment Tool (FRAX) questionnaire. Bone mineral density (BMD) at the femoral neck and lumbar spine measured using dual energy X-ray absorptiometry. Ten-year probabilities of hip and major osteoporotic fracture (MOF) were calculated based on the Thai FRAX model with BMD. The study's protocol was approved by the Institutional Ethical Committee (HE581241). Results: A total of 3,280 postmenopausal women were included. The mean ± SD age was 63.6 ± 10.1 years. A total of 170 (5.2%) participants had a history of hip and/or vertebral fracture. After excluding these participants with fracture history, 699 (21.3%) had osteoporosis, 355 (10.8%) had osteopenia with high risk of fracture (FRAX 10-year probability of hip fracture ≥ 3% and/or MOF ≥ 20%), 1192 (36.3%) had osteopenia with low risk of fracture (FRAX 10-year probability of hip fracture < 3% and MOF < 20%) and 864 (26.3%) had normal BMD. Taken together, a total of 1,224 (37.3%) participants would be eligible for anti-osteoporosis therapy (prior fracture, osteoporosis or osteopenia with high risk of fracture). Conclusion: The prevalence of Thai postmenopausal women who would be eligible for anti-osteoporosis therapy was 37.3%.

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Efficacy and Safety of Fezolinetant in Moderate-to-Severe Vasomotor Symptoms Associated With Menopause: A Phase 3 RCT

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Context: Vasomotor symptoms (VMS) are common, bothersome, and can persist for years before and after menopause. Objective: We aimed to assess efficacy/safety of fezolinetant for treatment of moderate-to-severe VMS associated with menopause. Methods: In this double-blind, placebo-controlled, 12-week (W) phase 3 trial with a 40W active treatment extension (NCT04003142; SKYLIGHT 2) women aged 40-65 years with minimum average 7 moderate-to-severe VMS/day were randomized to 12 weeks' once-daily placebo, fezolinetant 30 mg, or fezolinetant 45 mg. Completers were rerandomized to fezolinetant 30/45 mg for 40 additional weeks. Coprimary efficacy endpoints were mean daily change from baseline to W4 and W12 in VMS frequency and severity. Safety was also assessed.Results: Both fezolinetant doses statistically significantly reduced VMS frequency/severity at W4 and W12 vs placebo For VMS frequency, W4 least squares mean (SE) reduction vs placebo: fezolinetant 30 mg, -1.82 (0.46; P < .001); 45 mg, -2.55 (0.46; P < .001); W12: 30 mg, -1.86 (0.55; P < .001); 45 mg, -2.53 (0.55; P < .001). For VMS severity, W4: 30 mg, -0.15 (0.06; P<.05); 45 mg, -0.29 (0.06; P < .001); W12: 30 mg, -0.16 (0.08; P <.05); 45 mg, -0.29 (0.08; P < .001). Improvement in VMS frequency and severity was observed by W1; maintained through W52. Serious TEAEs were infrequent; these were reported by 2%, 1%, and 0% of those receiving fezolinetant 30 mg, fezolinetant 45 mg, and placebo, respectively. Conclusions: Daily fezolinetant 30 mg and 45 mg were efficacious and well-tolerated for treating moderate-to-severe VMS associated with menopause.

Nota: Fezolinetant a selective neurokinin 3 (NK3) receptor antagonist. Está en trámite para aprobación de la FDA.

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Associations between bone mass, hormone levels, and body composition in postmenopausal women

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Objectives: The aim of this study was to explore body composition parameters and hormone levels as risk factors for low bone mass (osteopenia/osteoporosis) in postmenopausal women. Methods: We analyzed biorepository samples from 139 postmenopausal women with no clinical evidence of cardiovascular disease. Inclusion criteria were menopause occurring after 40 years of age and no use of hormone therapy in the past 3 months. Bone mineral density and body composition were assessed by dual-energy x-ray absorptiometry. Sex hormone-binding globulin (SHBG) and follicle-stimulating hormone (FSH) levels were measured in all participants. Serum estradiol was measured by gas chromatography/tandem mass spectrometry in a subset of 57 participants. Free estrogen index was calculated by dividing estradiol by SHBG × 100. Results: Body mass index (25.0 [22.5-26.5] vs 27.7 [26.6-31.9] kg/m2, P < 0.001), estradiol (3.0 [2.7-4.5] vs 6.0 [2.7-15.0] pg/mL, P = 0.006), waist circumference (84 ± 9 vs 93 ± 12 cm, P < 0.001), appendicular lean mass (ALM) (15.739 ± 2.129 vs 17.184 ± 2.104 kg, P = 0.001), and fat mass index (9.36 [7.29-11.43] vs 11.38 [9.95-15.33] kg/m2, P < 0.001) were lower in women with low bone mass by dual-energy x-ray absorptiometry. Univariate analysis showed that free estrogen index, time since menopause, SHBG, and fat mass were significant predictors of low bone mass, and ALM was a significant predictor against low bone mass. Appendicular lean mass persisted as an independent predictor against low bone mass in multivariate models with fat mass and SHBG. In turn, fat mass was no longer significant in this multivariate model after inclusion of SHBG. No association of FSH with low bone mass was observed.Conclusions: Appendicular lean mass was a significant independent predictor against low bone mass in postmenopausal women. Further prospective studies are needed to investigate whether lean mass, fat mass, and FSH have a direct effect on bone mass in postmenopausal women, adding to the consequences of hypoestrogenism in this group.

Nota. ¡Felicitaciones Tayane!

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Menopause hormone therapy and sarcodynapenia: the Canadian Longitudinal Study on Aging

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Objective: To study the association between menopause hormone therapy (MHT) and sarcodynapenia in women from the Canadian Longitudinal Study on Aging. Methods: We conducted a cross-sectional study of 10,834 eligible postmenopausal women. The exposure was prior or current use of MHT (never, ever). Sarcopenia was defined as an appendicular lean mass less than 5.72 kg/m2 using dual-energy X-ray absorptiometry, and dynapenia as a grip strength less than 20.4 kg. Sarcodynapenia was defined as the concomitant presence of sarcopenia and dynapenia. Poisson regression analysis produced prevalence ratios (PR) for the associations between MHT use and sarcodynapenia adjusted for age at interview, education, study site, smoking, diabetes, hypertension, and body mass index. Additional analyses were conducted according to duration of MHT (5 years or less, more than 5 years), age categories (45-64 years, 65 years or older), and physical activity level as per the Physical Activity Scale for the Elderly score (less active, more active). Results: Menopause hormone therapy was not associated with sarcodynapenia (PR, 1.10; 95% CI, 0.89-1.35). When subdivided by years of use and physical activity, relative to no MHT use, MHT use for 5 years or less was associated with a higher prevalence of sarcodynapenia among less active women (PR, 1.57; 95% CI, 1.11-2.21) and with a lower prevalence among those more active (PR, 0.60; 95% CI, 0.39-0.92). The use of MHT for more than 5 years was not associated with sarcodynapenia. Conclusions: Menopause hormone therapy for 5 years or less is associated with a lower prevalence of sarcodynapenia among physically active women and with a higher prevalence of sarcodynapenia in those less active. Strategies to promote an active lifestyle in all postmenopausal women, including MHT users, are needed to attain benefits for musculoskeletal health.

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The emerging role of exosomes in innate immunity, diagnosis and therapy

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Exosomes, which are nano-sized transport bio-vehicles, play a pivotal role in maintaining homeostasis by exchanging genetic or metabolic information between different cells. Exosomes can also play a vital role in transferring virulent factors between the host and parasite, thereby regulating host gene expression and the immune interphase. The

association of inflammation with disease development and the potential of exosomes to enhance or mitigate inflammatory pathways support the notion that exosomes have the potential to alter the course of a disease. Clinical trials exploring the role of exosomes in cancer, osteoporosis, and renal, neurological, and pulmonary disorders are currently underway. Notably, the information available on the signatory efficacy of exosomes in immune-related disorders remains elusive and sporadic. In this review, we discuss immune cell-derived exosomes and their application in immunotherapy, including those against autoimmune connective tissue diseases. Further, we have elucidated our views on the major issues in immune-related pathophysiological processes. Therefore, the information presented in this review highlights the role of exosomes as promising strategies and clinical tools for immune regulation.

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Prolonged endocrine therapy in the management of hormone receptor-positive early-stage breast cancer: What is the appropriate duration?

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Aim: The clinical benefits associated with 5 years of endocrine therapy in the treatment of hormone receptor-positive, early-stage breast cancer (ESBC) have been well-substantiated. However, numerous studies have reported on the results of extended (i.e., >5 years) endocrine therapy to further effectuate a clinical benefit, with varying outcomes. Hence, the purpose of this study is to review these prolonged investigations and endeavor to clarify their corresponding treatment implications. Methods: We reviewed the study findings from several randomized controlled trials and meta-analyses, which incorporated clinical outcomes from pre-and postmenopausal, hormone receptor-positive, ESBC patients. Results: Hormone receptor-positive, ESBC patients treated with 5 years of endocrine therapy, who are node-negative with tumors <2 cm, will unlikely benefit from five additional years of treatment. Conversely, in women with larger tumors and node-positive disease, 7-8 total years of endocrine therapy may be indicated. Ultimately, clinicians should also consider the attendant side effects from endocrine therapy, namely bone fractures, namely cardiovascular symptoms, and vasomotor symptoms, when considering the appropriate treatment regimen. Conclusions: While increased duration of endocrine therapy may selectively accord significant clinical benefits, prior to determining the patient's treatment interval, physicians should also assess the cumulative side effects from endocrine therapy when endeavoring to maintain treatment compliance and bolster quality of life.