Selección de Resúmenes de Menopausia

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Evidence-based guideline: premature ovarian insufficiency

ESHRE, ASRM, CREWHIRL and IMS Guideline Group on POI; Nick Panay, Richard A Anderson, Amy Bennie, et al.
Study question: How should premature/primary ovarian insufficiency (POI) be diagnosed and managed, based on the best available evidence from published literature? Summary answer: The current guideline provides 145 recommendations on symptoms, diagnosis, causation, sequelae and treatment of POI. What is known already: POI presents a significant challenge to women's health, with far-reaching implications, both physically and emotionally. The potential implications include adverse effects on quality of life, on fertility and on bone, cardiovascular and cognitive health. Although hormone therapy (HT) can mitigate some of these effects, many questions still remain regarding the optimal management of POI. Study design, size, duration: The guideline was developed according to the structured methodology for development of European Society of Human Reproduction and Embryology (ESHRE) guidelines. Key questions were determined by a group of experts and informed by a scoping survey of women and healthcare professionals. Literature searches and assessment were then performed. Papers published up to 30 January 2024 and written in English were included in the guideline. An integrity review was conducted for the randomized controlled trials on POI included in the guideline.Participants/materials, setting, methods: Based on the collected evidence, recommendations were formulated and disc ussed within the guideline development group until consensus was reached. Women with lived experience of POI informed the recommendations in general, and particularly those on provision of care. A stakeholder review was organized after finalization of the draft. The final version was approved by the guideline development group and the ESHRE Executive Committee. Main results and the role of chance: New data indicate a higher prevalence of POI, 3.5%, than was previously thought. This guideline aims to help healthcare professionals apply best practice care for women with POI. The recent update of the POI guideline covers 40 clinical questions on diagnosis of the condition, the different sequelae, including bone, cardiovascular, neurological and sexual function, fertility and general well-being, and treatment options, including HT. The list of clinical questions was expanded from the previous iteration of the guideline (2015) based on the scoping survey and appreciation of emerging knowledge of POI. Questions were added on the role of anti-Müllerian hormone (AMH) in the diagnosis of POI, fertility preservation, muscle health and specific considerations for HT in iatrogenic POI. Additionally, the topic on complementary treatments was extended with specific focus on non-hormonal treatments and lifestyle management options. Significant changes from the previous 2015 guideline include the recommendations that only one elevated follicle stimulating hormone (FSH) >25 IU is required for diagnosis of POI and guidance that AMH testing, repeat FSH measurement and/or AMH may be required where there is diagnostic uncertainty. Recommendations were also updated regarding genetic testing, estrogen doses and regimens, use of the combined oral contraceptive and testosterone therapy. Women with lived experience of POI informed the recommendations on provision of care. Limitations, reasons for caution: The guideline describes different management options, but it must be acknowledged that for most of these options, supporting evidence is limited for POI. Wider implications of the findings: The guideline provides healthcare professionals with clear advice on best practice in POI care, based on the best evidence currently available. In addition, a list of research recommendations is provided to guide further studies in POI.

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Estradiol deficiency as a consequence of aging contributes to the depletion of the satellite cell pool in female mice

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The effects of aging on the satellite cell pool have primarily been studied in male mice, where the role of cell-intrinsic versus environmental changes on satellite cell function remains contentious. Estradiol is necessary for maintenance of satellite cell pool size in adult female mice-here we investigate the hypothesis that in females, estradiol is a major environmental driver of age-associated effects on satellite cells. In 24-26 month-old ovarian senescent mice, we find the satellite cell pool size is severely diminished in certain muscles (TA and EDL) but only marginally affected in others

(soleus and gastrocnemius). Supplementation with 17-beta estradiol significantly increases satellite cell pool size in the TA and EDL. To assess cell-intrinsic versus environmental regulation, we perform two transplantation experiments, Adult or Aged satellite cells transplanted into Adult recipients, and Adult satellite cells transplanted into Adult or Aged mice. These results demonstrate that the aged environment dominates over cell-autonomous age in terms of the specification of satellite cell pool size. Transcriptional profiling on satellite cells from Adult, Aged and ovariectomized mice revealed commonalities across the two estradiol-deficient conditions, Aged and ovariectomized, in GO terms from differentially expressed genes. Our findings support the hypothesis that the lack of estradiol contributes to reductions in satellite cell number in Aged female muscle, yet cells that remain are functional in terms of proliferative potential and self-renewal capacity. These findings have implications for sex hormone treatment of menopausal women and highlight the vital role of estradiol in the maintenance of the satellite cell pool.

Front Endocrinol (Lausanne). 2024 Nov 21:15:1476751. doi: 10.3389/fendo.2024.1476751. eCollection 2024.

Waist circumference, among metabolic syndrome components, predicts degraded trabecular bone score: a retrospective study of a female population from the 2005-2008 NHANES cohorts

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Background: Osteoporosis and metabolic syndrome (MetS) are conditions associated with ageing and chronic inflammation; among MetS' components, visceral obesity has been correlated to low bone mineral density in postmenopausal women. However, data on an increased fracture risk in MetS are still contrasting. The trabecular bone score (TBS) is an indicator of bone quality and a potential predictive factor for fractures. We aim to explore the relationship between MetS components and TBS. Methods: we analyzed data from 3962 women in the 2005-2006 and 2007-2008 NHANES cohorts, for whom a valid TBS value was available. All analyses were adjusted for the principal risk factors of altered bone metabolism. Results: An inverse significant association was observed between TBS and most of the MetS variables investigated, with the strongest correlation found with waist circumference (WC) ($P < 0.001$). WC represented the major predictor of degraded TBS ($P < 0.001$), in adjusted models considering age, 25(OH)Vitamin D, smoke and insulin resistance. Increased WC was significantly associated with the presence of bone fractures at the logistic regression analysis ($P = 0.001$) in all study participants and in the subgroup of women ≤50 years old after adjustment for potential confounders ($P = 0.006$). Conclusion: This study, using a large sample of women, found a negative association of MetS on bone health, mainly driven by visceral obesity.

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Efficacy of combination therapy of vitamin D and bisphosphonates in the treatment of postmenopausal osteoporosis: a systematic review and meta-analysis

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Objective: There is currently no consensus on whether the combination therapy of Vitamin D (VitD) and bisphosphonates offers superior efficacy compared to monotherapy in the treatment of postmenopausal osteoporosis. The aim of this study is to conduct a meta-analysis of recent relevant research to synthesize the available evidence and further investigate whether the combined use of VitD and bisphosphonates is superior to monotherapy in treating osteoporosis in postmenopausal women.Me thods and results: We systematically searched PubMed, EMBASE, the Cochrane Library, and Web of Science for randomized controlled trials (RCTs) comparing the effects of monotherapy with VitD or bisphosphonates versus their combination therapy in the treatment of postmenopausal osteoporosis, up to 1 February 2024. The articles were independently screened and relevant data were extracted by two investigators. The changes in mean values and percentage changes for bone resorption markers, bone formation markers, bone mineral density, and bone mineral metabolism markers were expressed using the standardized mean difference (SMD) and 95% confidence intervals (CI). Heterogeneity was quantitatively described using the I2 test. Subsequently, sensitivity analyses were performed for data with significant heterogeneity. Subgroup analyses were conducted based on the type of monotherapy used, and potential publication bias was assessed. The analysis revealed that the combination of VitD and bisphosphonates demonstrated a more pronounced effect in increasing alkaline phosphatase (ALP), 25-hydroxyvitamin D (25-OH-VD), and serum calcium (sCa) levels, as well as in decreasing levels of serum bone-specific alkaline phosphatase (sBALP), serum C-terminal telopeptide of type I collagen (sCTX), and urinary N-telopeptide of type I collagen (UriNTX) compared to the monotherapy group. However, the combination of VitD and bisphosphonates

did not show a significant advantage over monotherapy in terms of improving osteocalcin levels. The differences in the mean changes in osteocalcin, UriNTX, and sCa, as well as the percentage changes in parathyroid hormone (PTH) were not statistically significant ($p > 0.05$). Conclusion: The meta-analysis suggests that compared to monotherapy, the combination therapy of VitD and bisphosphonates exhibits a more favorable effect on bone mineral density and bone calcium metabolism-related markers in the treatment of postmenopausal osteoporosis.

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Alcohol consumption trajectories and risk of breast cancer among postmenopausal women: a Danish cohort study

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Alcohol consumption is a risk factor for breast cancer (BC), yet little is known about longitudinal alcohol consumption patterns and risk of BC. This study aimed to investigate whether trajectory profiles of alcohol consumption across adulthood were associated with risk of first primary malignant BC in postmenopausal women. At baseline, 28,720 pre- and postmenopausal women aged 50-65 years from the Danish Diet, Cancer and Health Cohort reported their average alcohol intake over the past 12 months and their average alcohol intake at the ages of 20, 30, 40, and 50 years. Alcohol consumption trajectories were estimated using latent class mixed models. BC cases were identified through record linkage to the Danish Cancer Registry. To examine associations between alcohol consumption trajectories and BC, we fitted a proportional hazard model adjusted for potential confounding factors using data from 24,543 postmenopausal women without missing covariate information. We identified 4 alcohol consumption trajectory profiles. During a median follow-up of 16.5 years, 1,591 cases of BC occurred. A mean alcohol consumption trajectory of > 10 g/day was associated with higher risk of BC (HR: 1.65, 95%CI: 1.35-2.03) compared to a mean alcohol consumption trajectory of < 6 g/day. We found no association between trajectory profiles characterized by lower alcohol intakes in early adulthood followed by increasing consumption of alcohol in adulthood compared to a consistently low intake of alcohol. Postmenopausal women drinking consistently high amounts of alcohol throughout adulthood had a higher risk of BC compared to women with a consistently low intake of alcohol.

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Hormone therapy and venous thromboembolism risk in women of menopausal age: a target trial emulation

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Contemporary data from randomized clinical trials focusing on the effect of oral hormone therapy (HT) on venous thromboembolism (VTE) in women aged 50-60 years are scarce despite evolving HT regimens. Here, we evaluated the association between HT and the risk of developing VTE using a target trial emulation among women of menopausal age. This retrospective cohort study applied a target trial emulation framework using claims data from a universal health insurance program in Taiwan. We emulated a sequence of trials in which women aged 50-60 years with no previous history of HT, hysterectomy, gynecologic disorders, or cardiovascular events were enrolled. Eligibility and HT use were evaluated monthly from 2011 to 2019. Eligible women were classified as either HT initiators or non-initiators for each consecutive month. Observational analogs of the intention-to-treat and per-protocol effects were estimated using pooled logistic regression models. Of the 150,686,148 eligible person-trials (3,001,112 women), 192,215 initiators and 768,860 propensity score-matched non-initiators were included in the analysis. The average duration of the HT was 1.25 years. Over a median follow-up of 5.83 years, 3,334 women developed VTE. The estimated hazard ratio (95% confidence interval) was 0.96 (0.88, 1.04) in the intention-to-treat analysis and 0.66 (0.41, 1.05) in per-protocol analysis. The estimated intention-to-treat and per-protocol 5-year VTE-free survival differences (95% confidence interval) were 0.1‰ (- 0.3‰, 0.7‰) and 0.3‰ (- 2.8‰, 4.0‰), respectively. In the contemporary clinical setting, we did not observe an increased VTE risk associated with HT in women aged 50-60 years.

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Characteristics and Prognosis of Breast Cancer Patients With Prior Hormone Replacement Therapy: Insights From the Korean Breast Cancer Society Registry

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By investigating the characteristics and prognosis of breast cancer (BC) patients who have undergone hormone replacement therapy (HRT), this study addresses a gap in the existing literature. A total of 17,355 postmenopausal patients with BC were analyzed using data from the Korea Breast Cancer Society database (2000-2014). Among them, 3,585 (20.7%) had a history of HRT before BC diagnosis (HRT group), while 13,770 (79.3%) never received HRT (non-HRT group). The HRT group exhibited an earlier pathologic stage, lower histologic and nuclear grades, and a higher rate of breast conservation surgery compared to the non-HRT group. Furthermore, this group had a higher rate of screening participation and a greater proportion of patients with a normal or overweight body mass index (BMI). The prognosis of the HRT group was better than that of the non-HRT group, with a 5-year overall survival rate of 93.9% versus 91.7% ($p < 0.001$). The hazard ratio for the HRT group was 0.7 (95% confidence interval, 0.608-0.805; $p < 0.001$). Increased screening participation, longer HRT duration, and a normal or overweight BMI were associated with a better prognosis in the HRT group. Patients with BC who underwent HRT showed better clinicopathological characteristics and prognosis than those who did not receive HRT. The results highlighted significant differences in patients who underwent screening and those with a normal or overweight BMI. Furthermore, a longer HRT duration was associated with a better prognosis.