

Selección de Resúmenes de Menopausia

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Associations of menopausal symptoms with job-related stress and social support in Japanese school teachers

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Objectives: Being a school teacher is highly stressful. This study aimed to clarify the prevalence of menopausal symptoms and explore the association between these symptoms and job-related stress among Japanese school teachers. **Study design:** A cross-sectional study was conducted among randomly selected elementary and junior high school teachers in Japan. Data from 284 teachers aged 45-60 years were analyzed. **Main outcome measures:** Menopausal symptoms were measured using the Greene Climacteric Scale, and the Brief Job Stress Questionnaire was used to assess job stressors, social support, and job/family satisfaction. Associations between scores on the Greene Climacteric Scale and on the Brief Job Stress Questionnaire, and demographic information were analyzed. **Results:** The most common menopausal symptom was "feeling tired or lacking in energy" (reported by 94.4 % of respondents). The total intensity of menopausal, psychological, and somatic symptoms was significantly correlated with the total level of job stress. Moderate correlations were found between depressive symptoms and job stress regarding suitable jobs, job control, and rewarding jobs, while weak correlations were evident between depressive symptoms and job stress regarding quantitative job overload, interpersonal conflict, and poor physical environment. Higher levels of perceived support from supervisors or co-workers and job satisfaction were associated with less severe psychological and somatic symptoms. **Conclusions:** Most middle-aged school teachers felt tired or lacking in energy. Higher job-related stress and lower levels of support from supervisors or co-workers were correlated with more severe menopausal symptoms. A supportive work environment and stress management are essential for such teachers.

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Study on gut microbiota and metabolomics in postmenopausal women

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Menopausal syndrome, occurring during the menopausal stage in women, manifests as symptoms stemming from decreased estrogen levels, such as hot flashes, insomnia, mental disorders (anxiety, depression), and osteoporosis. The bulk of studies have indicated alterations in the gut microbiota of those experiencing menopause syndrome compared to healthy women. However, This article focuses on the alterations in gut microbiota in perimenopausal women. Our study utilized 16 s rRNA sequencing to determine the differences in the gut microbiota and metabolites among 44 menopausal syndrome women. The distribution of gut microbiota in postmenopausal women varies based on the level of follicle stimulating hormone, with changes in gut microbiota abundance taking precedence over symptom onset. Fecal metabolites reveal changes in several metabolites, including Amino acid metabolism (Tyrosine, Tryptophan), Lipid metabolism (Alpha linolenic acid metabolism), and other metabolites. Disturbances in lipid metabolism, triggered by hormonal level fluctuations, can contribute to the development of osteoporosis.

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The impact of high exposure to perfluoroalkyl substances and risk for hormone receptor-positive breast cancer - A Swedish cohort study

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Introduction: Perfluoroalkyl substances (PFAS) are persisting chemicals with endocrine disruptive and carcinogenic properties. Previous studies involving cohorts with high PFAS exposure have not shown an increased risk of breast cancer. Research on PFAS and breast cancer according to hormone receptor status is limited. This study aims to investigate the association between PFAS exposure and hormone receptor-positive breast cancer. **Materials and methods:** In 2013, high levels of PFAS (sum of PFAS >10,000 ng/L), dominated by perfluorooctane sulfonic acid

(PFOS) and perfluorohexane sulfonic acid (PFHxS) were found in the drinking water from one of the two waterworks in Ronneby, Sweden. Breast cancer diagnoses and information of adjuvant endocrine therapy were retrieved from the Swedish Cancer Register and The Prescribed Drug Register 2006-2016 for a cohort of women residing in the municipality between 1985 and 2013 (n=24,509). Individual exposure was assessed based on municipality waterworks distribution data linked to annual residential addresses. Cox proportional hazards models were used in the analysis. The highest achieved educational level was used as an indicator of socioeconomic position. Sensitivity and subgroup analysis were performed for prepubertal exposure and diagnosis before or after age 50 (assumed menopause). Results: There were 313 cases of malignant breast cancer among women ≤ 85 years between 2006 and 2016. Of these, 224 cases (72%) were considered hormone receptor-positive based on the first prescription of adjuvant endocrine therapy, antiestrogens (40%) or aromatase inhibitor (60%). Among women ever living at a residential address with high PFAS exposure, the hazard ratio (HR) for breast cancer classified as hormone receptor-positive was 0.84; 95% confidence interval (CI) 0.61, 1.14. Findings were similar before and after menopause. Conclusion: High PFAS exposure from drinking water, dominated by PFOS and PFHxS, was not associated with an elevated risk of hormone receptor-positive breast cancer.

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Prevalence of cardiometabolic outcomes in women who underwent salpingo-oophorectomy to prevent hereditary breast and ovarian cancer: a meta-analysis

Francisco C. Aquino de Moraes, Lucca Dal Moro, Maria E. Cavalcanti Souza, Anna Luíza Soares de Oliveira et al. Risk reduction salpingo-oophorectomy (RRSO) is usually performed in women with hereditary breast and ovarian cancer (HBOC) syndrome for BRCA1 and BRCA2 gene mutation carriers, resulting in surgical menopause, which is more associated with a high risk of cardiovascular and metabolic disease than in premenopausal and natural menopausal women. This study assessed the prevalence of cardiovascular and metabolic outcomes in women who underwent salpingo-oophorectomy as a preventive measure against HBOC. This meta-analysis assessed prevalence rates for four metabolic/cardiovascular conditions: myocardial infarction, hypertension, hypercholesterolemia, and type 2 diabetes mellitus. DerSimonian and Laird random-effects models were applied to all analyses, with 95% confidence interval (CI). Heterogeneity was assessed with I^2 . We used OpenMeta Analyst software for statistical analysis. A total of five retrospective studies and one observational study involving 1,320 patients were included. The average body mass index (BMI) was 25.97 kg/m² and the average waist circumference was 87.94 cm. The analysis across a mean 4.94-year follow-up revealed prevalence rates for acute myocardial infarction of 1.5% (95% CI 0.3-2.7; $P = 0.077$; $I^2=56.25\%$), hypertension of 28% (95% CI 6.9-49.1; $P < 0.001$; $I^2 = 98.42\%$), hypercholesterolemia of 27.2% (95% CI 6.8-47.6; $P < 0.001$; $I^2=98.67\%$), and type 2 diabetes mellitus of 3.3% (95% CI 1.1-5.5; $P < 0.001$; $I^2=82.44\%$). Our findings suggest that there is no marked increase in cardiovascular risk among women with HBOC undergoing RRSO.

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Estrogens and breast cancer

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Estrogens have been associated with an increase in breast cancer risk. Yet emerging clinical and experimental evidence points to progestogens (endogenous progesterone or synthetic progesterone [progestin]) as the primary hormonal driver underlying seemingly estrogen-associated breast cancer risk. Estrogens may contribute to breast cancer risk indirectly by induction of the progesterone receptor (PR) and thus amplifying progesterone signaling. Large studies of hormonal contraceptives suggest that the small increase in breast cancer risk from hormonal contraceptives is mainly attributable to progestins, not estrogens. Estrogen-plus-progestin hormone-replacement therapy (HRT) has consistently shown an increase in breast cancer risk among postmenopausal women, whereas estrogen-alone HRT has little impact on breast cancer risk in naturally or surgically menopausal women. In particular, the long-term follow-up of the Women's Health Initiative (WHI) randomized trials suggests a benefit of estrogen alone. Recent data further indicate that endogenously elevated estrogen during assisted reproductive technology (ART) exhibits little adverse effect on or potentially a reduction in breast cancer risk and recurrence. Also, accumulating evidence suggests that inhibition of progesterone signaling is a critical mechanism underlying the risk-reducing and therapeutic effects of antiestrogens. Estrogen HRT has shown an array of proven benefits, including ameliorating menopausal symptoms and improving bone health. Collective evidence thus suggests that estrogen HRT is likely to offer health benefits to perimenopausal or

postmenopausal women, including breast cancer survivors, as well as young BRCA1/2 carriers with prophylactic oophorectomy for ovarian cancer prevention.

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Vaginal Estrogen Use in Breast Cancer Survivors: A Systematic Review and Meta-Analysis of Recurrence and Mortality Risks

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Objective: To assess the risk of breast cancer recurrence, breast cancer-specific mortality, and overall mortality for breast cancer survivors receiving vaginal estrogen therapy for genitourinary syndrome of menopause. **Data sources:** From the inception of each database to April 6th, 2024, a systematic literature search was conducted in Google Scholar, PubMed, EMBASE, CINAHL, NCBI, and Science Direct. A secondary search was conducted on September 26th, 2024 utilizing Google Scholar, PubMed, EMBASE, CINAHL, and Science Direct. **Study eligibility criteria:** We identified studies that reported on breast cancer recurrence defined per individual review criteria and considered both local and distant recurrence. **Study appraisal and synthesis methods:** Three reviewers evaluated studies with eligibility criteria in mind. Breast cancer recurrence was the primary outcome. The secondary outcomes included: breast cancer mortality and overall mortality. Pooled unadjusted odds ratios with 95% confidence intervals were calculated using a random-effects model. We assessed the 95% prediction intervals to calculate the likely range within which we can expect to observe future individual values, based on a current model or data set. We calculated the Fragility Index to evaluate the robustness of the pooled estimates. **Results:** Of 5,522 articles identified, eight observational studies were included in this meta-analysis. The use of vaginal estrogen in patients with a history of breast cancer was not associated with an increased risk of breast cancer recurrence (six articles, 24,060 patients, odds ratio, 0.48; 95% confidence interval, 0.23-0.99). There was no increase in the risk of breast cancer mortality (four articles, 61,695 patients, odds ratio 0.60; 95% confidence interval 0.17-2.02). Lastly, there was no increase in overall mortality with use of vaginal estrogen in breast cancer survivors (five articles 59,724, odds ratio 0.45; 95% confidence interval 0.42-0.49). **Conclusion:** The use of vaginal estrogen in patients with a history of breast cancer does not appear to be associated with an increased risk of breast cancer recurrence, breast cancer-specific mortality, or overall mortality.