The Link Between Endometriosis, Atherosclerotic Cardiovascular Disease, and the Health of Women Midlife.

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Endometriosis and atherosclerotic cardiovascular disease (ASCVD) are both essentially diseases of inflammation. It is well established that inflammation is the leading mechanism in the initiation and maintenance of vascular injury and in the development and progression of atherosclerosis. Thus, if women with endometriosis do indeed have increased general inflammation, they are at increased risk of developing microvascular dysfunction and atherosclerosis. Currently available evidence suggests that young female patients with proven endometriosis may be at a higher lifetime risk of developing cardiovascular disease; this may be unrecognized owing to the relatively young age of women found to have endometriosis. Other mechanisms proposed to explain the link between endometriosis and ASCVD include similarities in the genetic underpinnings of each condition including microRNA dysfunction and the association between endometriosis and early menopause, a risk for developing ASCVD. While physicians today primarily focus on traditional risk factors when evaluating an individual female patient's risk of developing ASCVD, we believe that a history of endometriosis should be included as a possible risk factor and needs further exploration. A better understanding of the mechanisms linking endometriosis with ASCVD will hopefully guide the implementation of new therapies to mitigate the increased cardiovascular disease burden that patients with endometriosis might face.

EMAS position statement: Predictors of premature and early natural menopause.


INTRODUCTION: While the associations of genetic, reproductive and environmental factors with the timing of natural menopause have been extensively investigated, few epidemiological studies have specifically examined their association with premature (<40 years) or early natural menopause (40-45 years). AIM: The aim of this position statement is to provide evidence on the predictors of premature and early natural menopause, as well as recommendations for the management of premature and early menopause and future research. MATERIALS AND METHODS: Literature review and consensus of expert opinion. RESULTS AND CONCLUSIONS: Strong genetic predictors of premature and early menopause include a family history of premature or early menopause, being a child of a multiple pregnancy and some specific genetic variants. Women with early menarche and nulliparity or low parity are also at a higher risk of experiencing premature or early menopause. Cigarette smoking (with a strong dose-response effect) and being underweight have been consistently associated with premature and early menopause. Current guidelines for the management of premature and early menopause mainly focus on early initiation of hormone therapy (HT) and continued treatment until the woman reaches the average age at menopause (50-52 years). We suggest that clinicians and health professionals consider the age at menopause of the relevant region or ethnic group as part of the assessment for the timing of HT cessation. In addition, there should be early monitoring of women with a family history of early menopause, who are a child of a multiple pregnancy, or who have had early menarche (especially those who have had no children). As part of preventive health strategies, women should be encouraged to quit smoking (preferably before the age of 30 years) and maintain optimal weight in order to reduce their risk of premature or early menopause.

Insomnia and depressive symptoms during the menopausal transition: theoretical and therapeutic implications of a self-reinforcing feedback loop.

Insomnia is a common and recurring condition during the menopausal transition that negatively affects both quality of life and health. Peri-menopausal insomnia has a multifactorial etiology; previous depression, hormonal changes and age/hormone-related irregularity in circadian rhythms can contribute to menopausal insomnia. Age-related poor health, pain and stress may favor the development of insomnia, while vasomotor symptoms, in particular hot flashes, may contribute to chronic forms of insomnia by activating a vicious cycle. Insomnia increases two- to threefold the risk of developing depressive symptoms during the peri-menopause. In fact, the menopausal transition is a window of vulnerability for the development of depressive symptoms, in which the risk of a major depressive disorder is 2-4 times greater than in the premenopausal period. Depression naturally has a negative impact on daily functioning, quality of life and health. Since the relationship between insomnia and depressive symptoms has been shown to be bidirectional, the aim of this review is to provide a brief overview of their association in the context of the menopausal transition. By exploring the potential pathways of their bidirectional relationship, this overview should be useful for preventive and therapeutic purposes. By treating insomnia we may be able to interrupt the self-reinforcing feedback loop with depressive symptoms, and thereby improve affective symptoms and women's wellbeing in this period of their life.


Sleep quality and related factors in postmenopausal women.
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Sleep disorders, resulting from hormonal changes and vasomotor symptoms, are common in both peri- and postmenopausal women. Poor sleep quality is associated with increased metabolic and cardiovascular risk, depression and a global impairment in health status. OBJECTIVES: Our study aimed to assess sleep quality in a sample of postmenopausal women and to identify the factors associated with poor sleep quality. It also considered the negative impact of sleep disorders such as insomnia, hypersonnia and breathing disturbances. SUBJECTS & METHODS: Data came from a cross-sectional study of 195 postmenopausal women conducted at the Italian Hospital of Buenos Aires, Argentina. Their sociodemographic, gynecological and clinical characteristics were recorded and sleep was assessed using the Pittsburgh Sleep Quality Index (PSQI), the Epworth Sleepiness Scale (ESS), and the Oviedo Sleep Questionnaire (Cuestionario Oviedo de Sueño, COS). RESULTS: The mean PSQI score was 6.90 ± 4.43. Sleep problems were common, with 46.7% of participants scoring over 5 on the PSQI. Snoring was reported by 13% of the patients (PSQI item 10 A). While 10% of the poor sleepers reported episodes of apnea during rest (PSQI item 10B), 7.1% reported leg spasm (PSQI I item 10C). The mean total COS score was 17.57 ± 7. According to COS item 1, all the subjects reported some dissatisfaction with the quality of their sleep. According to the COS, the prevalence of insomnia was 3.6% using ICD-10 criteria and 15.4% using DSM-IV criteria. The mean ESS score was 6.12 ± 4.09. CONCLUSION: Postmenopausal women are likely to complain of disturbed sleep. Almost half of the women in this survey said their sleep quality was impaired, and most of that group would benefit from medical attention.


Use of hormone therapy (HT) among Swedish women with contraindications - A pharmacoepidemiological cohort study.
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OBJECTIVES: To assess how women in Sweden with breast cancer (BC), endometrial cancer (EC), and/or pulmonary embolism (PE) were dispensed menopausal hormone therapy (HT). STUDY DESIGN: A retrospective study of Swedish women aged 40 years or more on 31 December 2005 (n = 2,863,643), followed through to December 2011. The study analysed three mandatory national healthcare registries: the Swedish Prescribed Drug Register, the National Inpatient Register and the Cancer Register. New users were defined as having a first dispensation after at least a 9-month break, and thus were possible to identify from April 2006. New users with at least one of the diagnoses BC, EC or PE before the first dispensation were classified as having a relative or absolute contraindication for HT. MAIN OUTCOME MEASURES: The relative risks of having HT dispensed after being diagnosed with BC, EC and/or PE. RESULTS: In total, 171,714 women had at least one of the diagnoses BC, EC or PE. The relative risk of having hormone therapy dispensed (current and new users) after being diagnosed with any of the diagnoses was significantly lower (PE, IRR 0.11, 95% CI 0.10-0.12; BC, IRR 0.12, 95% CI 0.11-0.13; EC, IRR 0.43, CI 0.40-0.46) than for women without these diagnoses. CONCLUSIONS: One in about 250 women started treatment with HT after being diagnosed with BC, PE or EC. Swedish prescribers seem to be well aware of the recommendations for HT use in women with contraindications. A few women, however, are prescribed HT despite having BC, EC or PE, possibly
after careful evaluation of the risks and benefits and giving informed consent. Women with a history of PE were prescribed transdermal HT to a larger extent than women in general, in line with results from observational studies.


Which is the preferred site for bone mineral density monitoring as an indicator of treatment-related anti-fracture effect in routine clinical practice? A registry-based cohort study.

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PURPOSE: The role of monitoring bone mineral density (BMD) as an indicator of an anti-fracture effect is controversial. Discordance between the spine and hip BMD is common and creates uncertainty in clinical practice.

METHODS: Using a population-based BMD Registry for the Province of Manitoba, Canada, we compared change in the spine and hip BMD as an indicator of treatment-related fracture risk reduction. The study cohort included 6093 women age > 40 years initiating osteoporosis treatment with two consecutive dual-energy X-ray absorptiometry (DXA) scans (mean interval 4.7 years). We computed change in the spine, total hip, and femur neck BMD between the first and second DXA scans as categorical (categorized as stable, detectable decrease, or detectable increase) and continuous measures. We modeled time to first incident fracture, ascertained from health services data, using Cox regression adjusted for baseline fracture probability.

RESULTS: During a mean follow-up of 12.1 years, 995 women developed incident major osteoporotic fractures (MOF) including 246 with hip fractures and 301 with clinical vertebral fractures. Women with a detectable decrease in total hip BMD compared with stable BMD experienced an increase in MOF (adjusted hazard ratio [aHR] 1.46, 95% confidence interval [CI] 1.25-1.70) while those with a detectable increase in total hip BMD experienced a decrease in MOF (aHR 0.71, 95% CI 0.61-0.83), and these results were not attenuated when adjusted for change in spine BMD. Similar results were seen for hip and clinical vertebral fracture outcomes, when BMD change was assessed as a continuous measure, and when femur neck BMD monitoring was used instead of total hip BMD monitoring.

CONCLUSIONS: Treatment-related increases in total hip BMD are associated with lower MOF, hip, and clinical vertebral fracture risk compared with stable BMD, while BMD decreases are associated with higher fracture risk. In contrast, spine BMD change is not independently associated with fracture risk.


Inverse association between physical activity and blood glucose is independent of sex, menopause status, and first-degree family history of diabetes.

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AIMS: Exercise training is a recognized strategy central to the prevention, treatment and management of diabetes and prediabetes. The present study was to investigate the association between physical activity and blood glucose, as well as the influence of sex, menopause status, and family history of diabetes.

MATERIALS AND METHODS: Participants with normal weight were selected from REACTION study, and divided into inactive (moderate-to-vigorous-intensity physical activity [MVPA] < 30 min/week), low-degree (MVPA ≥ 30 and ≤ 420 min/week), and high-degree (MVPA > 420 min/week) active groups. RESULTS: A total of 2601 individuals with an average age of 57.85 ± 8.39 years were enrolled. Multivariate ANOVA uncovered that after adjustment for sex & menopause status and family history of diabetes respectively, fasting plasma glucose (FPG), 2-hour plasma glucose (2hPG), and glycated hemoglobin A1c (HbA1c) decreased through inactive, low-degree and high-degree active groups (all P for trend < 0.05). The association of blood glucose indexes with physical activity was independent of this association with sex & menopause status and first-degree family history of diabetes, respectively. Multivariate linear regression analyses showed that MVPA was an independent factor associated negatively with FPG, 2hPG, and HbA1c, respectively (all P < 0.01).

CONCLUSIONS: Higher degree of physical activity was associated with lower blood glucose regardless of sex, menopause status, and first-degree family history of diabetes. MVPA is a negative factor associated with blood glucose independently. Physical activity with adequate time and intensity is strongly recommended to individuals with sexual and familial susceptibility to diabetes but without overweight/obesity.