Selección de Resúmenes de Menopausia

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Aging women and their endothelium: Probing the relative role of estrogen on vasodilator function.

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Despite significant decreases in cardiovascular disease mortality in the past three decades, it still remains the leading cause of death in women. Following menopause and the accompanying loss of estrogen, women experience a unique, accelerated rise in CVD risk factors. Dysfunction of the endothelium represents an important antecedent to CVD development, with rapid declines in endothelial vasodilator function reportedly taking place across the menopause transition. Importantly the decline in endothelial function is independent of chronological age and is associated with estrogen deficiency. Estrogen-mediated effects, including increasing nitric oxide bioavailability and attenuating oxidative stress and inflammation, contribute to preserving endothelial health. This review will discuss studies that have probed the role of estrogen on endothelial vasodilator function in women at discrete stages of the menopause transition and the effects of estradiol supplementation in postmenopausal women. Estrogen receptor signaling is also an important aspect of endothelial function in women and studies suggests that expression is reduced with both acute and prolonged estrogen deficiency. Changes in regulatory mechanisms of estrogen receptor alpha expression as well as sensitivity to estrogen may underly the differential effects of estrogen therapy in early (≤5 years past final menstrual period) and late postmenopausal women (>5 years past final menstrual period). Lastly, this review presents potential therapeutic targets that includes increasing L-arginine bioavailability and estrogen receptor activation, to prevent endothelial dysfunction in postmenopausal women as a strategy for decreasing CVD mortality in this high risk population.

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Endogenous Sex Hormones and Endothelial Function in Postmenopausal Women and Men: The Multi-Ethnic Study of Atherosclerosis.

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Background: The relationship of endogenous sex hormones (SH) with vascular endothelial function and with cardiovascular disease (CVD) is incompletely understood. We examined the associations between SH and endothelial function measured by brachial artery flow-mediated dilation (FMD). Materials and Methods: We included 1368 postmenopausal women and 1707 men, free of clinical CVD, participating in MESA Visit 1 (2000-2002). Serum SH [total testosterone, SH binding globulin (SHBG), dehydroepiandrosterone (DHEA), estradiol] were measured; free testosterone was calculated. The percent FMD difference (%FMD) was measured by high-resolution ultrasound. Using multivariable-adjusted linear regression, we tested the cross-sectional associations of SH (log transformed, compared per one SD increment) with %FMD. Results: The mean age of women and men were 64.2 and 61.4 years, respectively. Among women, after adjusting for demographics, CVD risk factors, and hormone therapy, higher SHBG was associated with greater %FMD [β = 0.215% (95% CI 0.026-0.405)], whereas higher free testosterone was associated with a smaller %FMD [-0.209% (-0.402, -0.017)]. Estradiol and DHEA were not associated with %FMD in women after multivariable adjustment. There was an age interaction, with higher free testosterone and lower SHBG associated with worse FMD in women <65 years of age, but not in those ≥65 years (p = 0.04). We did not see similar associations in men. Conclusions: A more androgenic SH profile of higher free testosterone and lower SHBG was associated with worse %FMD in postmenopausal women. Changes in SH with aging and menopause may result in vascular changes in women. Further studies are needed to assess longitudinal changes in SH levels and their association with vascular function.

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High risk for cardiovascular disease in postmenopausal breast cancer survivors.

Buttros DAB1, Branco MT, Orsatti CL, Almeida-Filho BS, Nahas-Neto J, Nahas EAP.
OBJECTIVE: Breast cancer patients have a higher mortality risk of cardiovascular disease (CVD) than women from the general population. CVD risk may increase significantly in postmenopausal women with early-stage breast cancer. The aim of this study was to evaluate risk factors for CVD in postmenopausal breast cancer survivors. METHODS: In this cross-sectional study, 96 postmenopausal breast cancer survivors were compared with 192 postmenopausal women. The main group included women with amenorrhea >12 months, aged ≥45 years, with breast cancer, and without established CVD. The control group fulfilled the same criteria, but did not have breast cancer. Groups were matched by age, time since menopause, and body mass index, in a ratio of 1 case to 2 controls (1:2). Women with three or more of the following criteria were diagnosed with metabolic syndrome: waist circumference >88 cm; triglycerides ≥150 mg/dL; high-density lipoprotein cholesterol <50 mg/dL; blood pressure ≥130/85 mm Hg; and glucose ≥100 mg/dL. Immunoassays were used (enzyme-linked immunosorbent assay test) for measurement of plasma heat shock proteins (HSP) 60 and 70 concentrations. Atherosclerotic disease was determined by intima-media thickness (>1 mm) of the carotid arteries and/or the presence of atheromatous plaque assessed by carotid artery ultrasound (scanner duplex).RESULTS: Breast cancer patients had higher HSP60 levels and lower HSP70 levels than controls ($P<0.05$). Analysis showed that the odds of developing metabolic syndrome (odds ratio [OR]=4.21, 95% CI, 2.28-7.76), atheromatous plaque (OR=2.61, 95% CI, 1.19-5.72), diabetes (OR=4.42; 95% CI, 1.86-10.49), hypertriglyceridemia (OR=2.32, 95% CI, 1.33-4.0), and increased waist circumference (OR=11.22, 95% CI, 4.0-31.65) was significantly higher in women treated for cancer than in women without breast cancer.CONCLUSIONS: Postmenopausal breast cancer survivors had a stronger association with risk factors for cardiovascular disease than postmenopausal women without breast cancer.

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Hot flashes and Awakenings among Midlife Women.

Thurston RC1,2,3, Chang Y4, Buysse DJ1, Hall MH1,3, Matthews KA1,2,3.
STUDY OBJECTIVES: For most women, the menopause is accompanied by hot flashes and sleep problems. Although hot flashes reportedly wake women from sleep, in the few studies that have used objective measures of both sleep and hot flashes, links between hot flashes and nocturnal wakening have been inconsistent. In a well-characterized cohort of midlife women, we examined the association between objectively-assessed hot flashes and actigraphically-defined wake from sleep. We hypothesized that wake episodes would be more likely during an objective hot flash relative to minutes without a hot flash. METHODS: Peri- and postmenopausal midlife women underwent simultaneous objective measurement of hot flashes (sternal skin conductance) and sleep (actigraphy) over 24 hours in the home. The likelihood of waking in the minutes during the hot flash relative to the minutes preceding the hot flash were compared using generalized estimating equations. RESULTS: We studied 168 women with at least one objective nocturnal hot flash and actigraphy data. Actigraphy-assessed wake episodes were concurrent with seventy-eight percent of the objective hot flashes. We found an increased likelihood of wake in the minutes during the objective hot flash [0 to +5 minutes: OR (95%CI)=5.31(4.46-6.33), p<.0001] relative to the minutes preceding it [-10 to -1 minutes]. The increased likelihood of wake occurred irrespective of whether the women reported the objective hot flash. CONCLUSION: Among these women who underwent objective measurement of sleep and hot flashes, nocturnal wakefulness was observed with the majority of hot flashes.

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Real-world Adherence and Persistence with Bisphosphonate Therapy in Postmenopausal Women: A Systematic Review.

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PURPOSE: Bisphosphonate therapy is a well-established and effective treatment for postmenopausal osteoporosis and the prevention of osteoporotic fracture. However, poor adherence to and poor persistence with bisphosphonate therapy may reduce its benefits. Previous studies have documented the poor rates of adherence and persistence among postmenopausal women with osteoporosis. The objective of this systematic literature review was to evaluate adherence, persistence, and the impact of adherence and persistence on fracture risk in postmenopausal women with diagnosed osteoporosis. METHODS: Articles eligible for review included observational studies of the real-world use of bisphosphonates in 23 countries and were identified by using MEDLINE, EMBASE, IMSEAR (Index Medicus for South-East Asia Region), and LILACS (Latin American and Caribbean Health Sciences Database). FINDINGS: We identified and evaluated 10 studies that assessed bisphosphonate adherence by measuring medication possession ratio

(MPR), persistence, and/or the impact of adherence and persistence on fracture risk. Mean MPR at 1 year ranged from 54% to 71% in the 3 studies that reported this assessment of adherence, and 40%-85% of patients at 1 year were adherent, defined as an MPR ≥80%, in the 8 studies that reported this end point. At 1 year, rates of persistence ranged from 28% to 74%. Rates of adherence and persistence were highest with agents requiring less frequent administration and typically declined over time. Fracture rates were significantly lower among adherent women with MPRs ≥80% compared with women with MPRs <80%. IMPLICATIONS: Our results show that suboptimal adherence to and persistence with bisphosphonate therapy in postmenopausal women are common and increase the risk of fracture. Additional research is needed to identify and incorporate effective strategies for improving adherence to bisphosphonates in postmenopausal women.

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Fruit and vegetable intake and bones: A systematic review and meta-analysis.

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BACKGROUND: Although intake of fruits and vegetables seemed to have a protective effect on bone metabolism, its effect on fractures remains uncertain. METHODS: A systematic review of randomized controlled trials (RCTs) and cohort studies (PROSPERO: CRD42016041462) was performed. RCTs and cohort studies that evaluated the combined intake of fruits and vegetables in men and women aged over 50 years were included. We considered fractures as a primary outcome measure. Changes in bone markers were considered as secondary outcomes. The search strategy included the following descriptors: fruit, vegetables, vegetable products, bone and bones, bone fractures, postmenopausal osteoporosis, and osteoporosis. PubMed, Embase, and Cochrane Library were the databases used. The appraisal of the studies was performed by two independent reviewers, and discussed and agreed upon by both examiners. The data extracted from the RCTs and cohort studies were summarized separately. The risks of fractures were combined across studies using random models. Bone resorption marker (CTx) was summarized with standardized mean differences. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) method was used to evaluate the strength of recommendations. RESULTS: Of the 1,192 studies screened, 13 articles were included in the systematic review and 10 were included in the pooled analysis (6 cohort studies and 4 RCTs). The six cohort studies included in the meta-analysis included a population of 225,062. The pooled hazard ratio (HR) (95% confidence interval (CI)) of the hip in five studies was 0.92 (0.87, 0.98). Its heterogeneity was moderate (I2 = 55.7%, p = 0.060), GRADE (⊕⊕⊕O). Two cohort studies evaluated the risk of any fracture; the HR was 0.90 (95% CI: 0.86-0.96), with aheterogeneity of 24.9% (p = 0.249, GRADE (⊕⊕⊕O)). There was no association between the bone resorption marker CTx and 3 months of fruit and vegetable intake evaluated by four RCTs, GRADE (⊕⊕O O). CONCLUSION: There was an association between the increase of at least one serving of fruits and vegetables per day and decreases in the risk of fractures. The level of evidence for this association is moderate.