Selección de Resúmenes de Menopausia

Semana del 18 al 24 de Marzo de 2015

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Comparison of antiresorptive effect of hormone therapy and ibandronate in postmenopausal osteoporotic women by assessing type I collagen C-telopeptide levels.

Srividhya NB, Singh N, Goel N, Gambhir JK, Rathi V, Rajaram S.

OBJECTIVES: The aim of this study is to compare the antiresorptive effect of hormone therapy and oral ibandronate in postmenopausal osteoporotic women by measuring bone mineral density (BMD) and degradation products of C-terminal telopeptide of type I collagen (CTX) using serum crosslaps ELISA. STUDY DESIGN: The study is a randomized comparative trial. METHODS: About 60 women with age > 40 years, having either surgical or medical menopause with T- or Z-score below -2.5 SD were included in the study. They were randomized into two groups of 30 each; one group received conventional hormone therapy (group I) and the other group received ibandronate monthly (group II). The treatment was given for 6 months. RESULTS: The BMD increased from 0.894 g/cm2 to 0.933 g/cm2 ($p < 0.01$) in group I and from 0.865 g/cm2 to 0.934 g/cm2 ($p < 0.01$) in group II. The increase in BMD in group I (4.3%) was less than group II (7.9%) which was significant ($p < 0.01$). The serum CTX levels also showed significant reduction in both groups after 6 months of therapy; more reduction was seen in group II as compared to group I (41.5% vs. 4.6%, $p < 0.01$). CONCLUSION: Ibandronate can be used as a substitute to hormone therapy in women presenting with osteoporosis. Long-term studies are needed to authenticate the observation.

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Prevention of bone loss with risedronate in breast cancer survivors: a randomized, controlled clinical trial.

Greenspan SL, Vujevich KT, Brufsky A, Lembersky BC, van Londen G, Jankowitz R, Puhalla S, Rastogi P, Perera S

INTRODUCTION: Aromatase inhibitors (AIs), adjuvant endocrine therapy for postmenopausal women with hormone-receptor-positive breast cancer, are associated with bone loss and fractures. Our objectives were to determine if (1) oral bisphosphonate therapy can prevent bone loss in women on an AI and (2) early changes in bone turnover markers (BTM) can predict later changes in bone mineral density (BMD). METHODS: We conducted a 2-year double-blind, placebo-controlled, randomized trial in 109 postmenopausal women with low bone mass on an AI (anastrozole, letrozole, or exemestane) for hormone-receptor-positive breast cancer. Participants were randomized to once weekly risedronate 35 mg or placebo, and all received calcium plus vitamin D. The main outcome measures included BMD, BTM [carboxy-terminal collagen crosslinks (CTX) and N-terminal propeptide of type 1 procollagen (P1NP)], and safety. RESULTS: Eighty-seven percent completed 24 months. BMD increased more in the active treatment group compared to placebo with an adjusted difference at 24 months of 3.9 ± 0.7 percentage points at the spine and 3.2 ± 0.5 percentage points at the hip (both $p < 0.05$). The adjusted difference between the active treatment and placebo groups were 0.09 ± 0.04 nmol/LBCE for CTX and 23.3 ± 4.8 μg/mL for P1NP (both $p < 0.05$). Women with greater 12-month decreases in CTX and P1NP in the active treatment group had a greater 24-month increase in spinal BMD ($p < 0.05$). The oral therapy was safe and well tolerated. CONCLUSION: In postmenopausal women with low bone mass and breast cancer on an AI, the oral bisphosphonate risedronate maintained skeletal health.

Age (Dordr). 2015 Apr;37(2):9766. doi: 10.1007/s11357-015-9766-0. Epub 2015 Mar 20.

Obese-insulin resistance accelerates and aggravates cardiometabolic disorders and cardiac mitochondrial dysfunction in estrogen-deprived female rats.

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Women have a lower incidence of cardiovascular diseases (CVD) than men at a similar age but have an increased incidence of CVD and metabolic syndrome after menopause, indicating the possible protective effects of estrogen on cardiometabolic function. Although obesity is known to increase CVD risks, its impact on the heart on estrogen deprivation is still inconclusive. We investigated the effects of obese-insulin resistance on cardiometabolic function in estrogen-deprived ovariectomized rats. Adult female ovariectomized (O) or sham (S)-operated rats randomly received either normal diet (ND, 19.77 % fat) or high-fat diet (HF, 57.60 % fat) ($n = 6$/group) for 12 weeks. The heart rate

variability (HRV), left ventricular (LV) performance, cardiac autonomic balance, cardiac mitochondrial function, metabolic parameters, oxidative stress, and apoptotic markers were determined at 4, 8, and 12 weeks. Insulin resistance developed at week 8 in NDO, HFS, and HFO rats as indicated by increased plasma insulin and HOMA index. However, only HFO rats had elevated plasma cholesterol level at week 8, whereas HFS rats had showed elevation at week 12. In addition, only HFO rats had depressed HRV, impaired LV performance indicated by decreased fractional shortening (%FS) and cardiac mitochondrial dysfunction indicated by increased mitochondrial ROS level, mitochondrial depolarization and swelling, as early as week 8, whereas other groups exhibited them at week 12. Either estrogen deprivation or obesity alone may impair metabolic parameters, cardiac autonomic balance, and LV and mitochondrial function. However, an obese insulin-resistant condition further accelerated and aggravated the development of these cardiometabolic impairments in estrogen-deprived rats.

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Cardiovascular disease among women with and without diabetes mellitus and bilateral oophorectomy.

Appiah D, Winters SJ, Allison MA, Baumgartner RN, Groves FD, Myers JA, Hornung CA.

AIMS: Women with type-2 diabetes (DM2) are at high risk of cardiovascular disease (CVD) which may be partly due to increased ovarian androgen production. Since the association of bilateral oophorectomy (BSO) with CVD remains controversial, we evaluated whether BSO is inversely associated with CVD among DM2. METHODS: Data were obtained from a national sample of 9599 postmenopausal women. Adjusted estimates and 95% confidence intervals (CIs) were calculated using logistic and Cox regression. RESULTS: At baseline 2426 women had type-2 diabetes, of whom 580 had BSO. DM2 had adverse CVD risk profiles compared to women without diabetes, as did women with BSO with or without diabetes compared to those with intact ovaries. In DM2, BSO was positively associated with prevalent CVD (odds ratio: 1.63, 95%CI: 1.16-2.30). However, the higher odds were limited to women who had BSO before age 45 years (OR: 2.11, CI: 1.45-3.08). During a mean follow-up of 12.7 years, BSO in DM2 was positively associated with CVD mortality (hazard ratio: 2.23, CI: 1.25-3.99). Among women with BSO, those with family members who had MI before age 50 had elevated odds of CVD (OR: 2.29, CI: 1.56-3.37) compared to those without such family history (OR: 0.90, CI: 0.67-1.20), Pinteraction=0.04. CONCLUSIONS: The risk of CVD is increased not decreased with BSO in DM2. Further, we propose that the association of BSO and CVD in young women with diabetes may partly reflect genetic susceptibility to CVD rather than an effect of ovarian hormones.

Clinics (Sao Paulo). 2015 Feb;70(2):107-13. doi: 10.6061/clinics/2015(02)07.

What is the influence of hormone therapy on homocysteine and CRP levels in postmenopausal women?

Lakryc EM, Machado RB, Soares JM Jr, Baracat EC.

OBJECTIVE: To evaluate the influence of estrogen therapy and estrogen-progestin therapy on homocysteine and C-reactive protein levels in postmenopausal women. METHODS: In total, 99 postmenopausal women were included in this double-blind, randomized clinical trial and divided into three groups: Group A used estrogen therapy alone (2.0 mg of 17β-estradiol), Group B received estrogen-progestin therapy (2.0 mg of 17 β-estradiol +1.0 mg of norethisterone acetate) and Group C received a placebo (control). The length of treatment was six months. Serum measurements of homocysteine and C-reactive protein were carried out prior to the onset of treatment and following six months of therapy. RESULTS: After six months of treatment, there was a 20.7% reduction in homocysteine levels and a 100.5% increase in C-reactive protein levels in the group of women who used estrogen therapy. With respect to the estrogen-progestin group, there was a 12.2% decrease in homocysteine levels and a 93.5% increase in C-reactive protein levels.
CONCLUSION: Our data suggested that hormone therapy (unopposed estrogen or estrogen associated with progestin) may have a positive influence on decreasing cardiovascular risk due to a significant reduction in homocysteine levels.

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The Contribution of Mammography Screening to Breast Cancer Incidence Trends in the United States: An Updated Age-period-cohort Model.

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BACKGROUND: The impact of screening mammography on breast cancer incidence is difficult to disentangle from cohort- and age-related effects on incidence. METHODS: We developed an age-period-cohort model of ductal carcinoma in situ (DCIS) and invasive breast cancer incidence in U.S. females using cancer registry data. Five functions were

included in the model to estimate stage-specific effects for age, premenopausal birth cohorts, postmenopausal birth cohorts, period (for all years of diagnosis), and a mammography period effect limited to women aged ≥40 years after 1982. Incidence with and without the mammography period effect was calculated. RESULTS: More recent birth cohorts have elevated underlying risk compared to earlier cohorts for both pre- and postmenopausal women. Comparing models with and without the mammography period effect showed that overall breast cancer incidence would have been 23.1% lower in the absence of mammography in 2010 (95% CI 18.8, 27.4), including 14.7% (9.5, 19.3) lower for invasive breast cancer and 54.5% (47.4, 59.6) lower for DCIS. Incidence of distant-staged breast cancer in 2010 would have been 29.0% (13.1, 48.1) greater in the absence of mammography screening. CONCLUSIONS: Mammography contributes to markedly elevated rates of DCIS and early stage invasive cancers, but also contributes to substantial reductions in the incidence of metastatic breast cancer. IMPACT: Mammography is an important tool for reducing the burden of breast cancer, but future work is needed to identify risk factors accounting for increasing underlying incidence and to distinguish between indolent and potentially lethal early stage breast cancers that are detected via mammography.

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Effect of transdermal hormone therapy on platelet haemostasis in menopausal women.

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INTRODUCTION: Despite the undeniably positive effect on the quality of life of menopausal women, menopausal hormone therapy (HT) also has negative side-effects, which include, among others, thromboembolic complications. OBJECTIVE: To assess the effect of a popular type of this therapy - transdermal HT on platelet hemostasis, which plays a significant role in intravascular coagulation. MATERIALS AND METHOD: The study group consisted of 92 postmenopausal women: 1) group G1 (n=30), treated with transdermal HT (17β-estradiol 50 μg/day plus NETA 170 μg/day); 2) group G2 (n=31), treated with the above transdermal HT and low dosage of acetylsalicylic acid (ASA); 3) control group P (n=31). All the women qualified for the study had two or more risk factors for arterial thrombosis, such as: smoking, hypertension, visceral obesity, hypercholesterolaemia, hypertriglyceridaemia, elevated levels of PAI-1, and increased fibrinogen, increased activity of coagulation factor VII. RESULTS: After three months of therapy, in the G1 group there was a decrease in platelet count (p = 0.004) and a decrease in GP IIb/IIIa - a platelet receptor for fibrinogen (p = 0.022). In the G2 group, no changes in the tested parameters were observed. CONCLUSIONS: Transdermal HT in the form of combined, estrogen-progestogen patches favourably modifies platelets haemostasis, reversing the adverse effects that occur after menopause. 2) The use of low ASA doses as a thromboprophylaxis in short-term transdermal HT is not necessary.

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Diabetes and onset of natural menopause: results from the European Prospective Investigation into Cancer and Nutrition.

Brand JS, Onland-Moret NC, Eijkemans MJ, Tjønneland A, Roswall N, Overvad K, Fagherazzi G, et al.

STUDY QUESTION: Do women who have diabetes before menopause have their menopause at an earlier age compared with women without diabetes? SUMMARY ANSWER: Although there was no overall association between diabetes and age at menopause, our study suggests that early-onset diabetes may accelerate menopause. WHAT IS KNOWN ALREADY: Today, more women of childbearing age are being diagnosed with diabetes, but little is known about the impact of diabetes on reproductive health. STUDY DESIGN, SIZE, DURATION: We investigated the impact of diabetes on age at natural menopause (ANM) in 258 898 women from the European Prospective Investigation into Cancer and Nutrition (EPIC), enrolled between 1992 and 2000. PARTICIPANTS/MATERIALS, SETTING, METHODS: Determinant and outcome information was obtained through questionnaires. Time-dependent Cox regression analyses were used to estimate the associations of diabetes and age at diabetes diagnosis with ANM, stratified by center and adjusted for age, smoking, reproductive and diabetes risk factors and with age from birth to menopause or censoring as the underlying time scale. MAIN RESULTS AND THE ROLE OF CHANCE: Overall, no association between diabetes and ANM was found (hazard ratio (HR) = 0.94; 95% confidence interval (CI) 0.89-1.01). However, women with diabetes before the age of 20 years had an earlier menopause (10-20 years: HR = 1.43; 95% CI 1.02-2.01, <10 years: HR = 1.59; 95% CI 1.03-2.43) compared with non-diabetic women, whereas women with diabetes at age 50 years and older had a later menopause (HR = 0.81; 95% CI 0.70-0.95). None of the other age groups were associated with ANM. LIMITATIONS, REASONS FOR CAUTION: Strengths of the study include the large sample size and the broad set of potential confounders measured. However, results may have been underestimated due to survival bias. We cannot be sure about the sequence of the events in women with a late age at diabetes, as both events then occur in a short period. We could not distinguish between type 1 and type 2 diabetes. WIDER IMPLICATIONS OF THE FINDINGS: Based on the

literature, an accelerating effect of early-onset diabetes on ANM might be plausible. A delaying effect of late-onset diabetes on ANM has not been reported before, and is not in agreement with recent studies suggesting the opposite association.