Selección de Resúmenes de Menopausia

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Efficacy and Safety of Generic Alendronate for Osteoporosis Treatment

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Background: While osteoporosis increases the risk of fragility fractures, bisphosphonate has been proven to increase bone strength and reduce the risk of vertebral and non-vertebral fractures. In addition to its efficacy, substituting the brand with generic medication is a strategy to optimize healthcare expenditures. This study aimed to evaluate the efficacy of generic alendronate treatment and assess potential adverse events in patients with osteoporosis. Materials and methods: A retrospective review was conducted on 120 patients who met the indications for osteoporosis treatment, received weekly generic alendronate (70 mg) for >1 year, and underwent evaluation through standard axial dual-energy X-ray absorptiometry (DXA). The outcomes of this study were the percent change in bone mineral density (BMD) at the lumbar spine, femoral neck, and total hip after one year of treatment. The major adverse events occurring during medication that led to the discontinuation of drug administration were documented. Results: Most patients were female (96.7%) with an average age of 69.0 ± 9.3 years. The percent change in BMD increased at all sites after one year of generic alendronate treatment (lumbar spine: 5.6 ± 13.7, p-value <0.001; femoral neck: 2.3 ± 8.3, p-value = 0.023; total hip: 2.1 ± 6.2, p-value = 0.003), with over 85% of patients experiencing increased or stable BMD. Three patients discontinued the medication due to adverse effects: two had dyspepsia, and one had persistent myalgia.Concl usion: Generic alendronate may be considered an effective antiresorptive agent for osteoporosis treatment with a low incidence of adverse effects.

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Differences in coronary angiographic findings and outcomes between men and postmenopausal women with stable chest pain

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Background: Despite the significant increase in cardiovascular events in women after menopause, studies comparing postmenopausal women and men are scarce. Methods: We analyzed data from a nationwide, multicenter, prospective registry and enrolled 2412 patients with stable chest pain who underwent elective coronary angiography. Binary coronary artery disease (b-CAD) was defined as the ≥50% stenosis of epicardial coronary arteries, including the left main coronary artery. Results: Compared with the men, postmenopausal women were older (66.6 ± 8.5 vs. 59.5 ± 11.4 years) and had higher high-density lipoprotein cholesterol levels (49.0 ± 12.8 vs. 43.6 ± 11.6 mg/dl, P < 0.01). The prevalence of diabetes did not differ significantly (P = 0.40), and smoking was more common in men than in postmenopausal women (P ≤ 0.01). At enrollment, b-CAD and revascularization were more common in men than in postmenopausal women (50.3% vs. 41.0% and 14.4% vs. 9.7%, respectively; both P < 0.01). However, multivariate analyses revealed that revascularization [odds ratio (OR): 0.72; 95% confidence interval (CI): 0.49-1.08] was not significantly related to sex and a similar result was found in age propensity-matched population (OR: 0.80; 95% CI: 0.52-1.24). During the follow-up period, the secondary composite cardiovascular outcomes were lower in postmenopausal women than in men (OR: 0.55; 95% CI: 0.31-0.98), also consistent with the result using the age propensity-mated population (OR: 0.33; 95% CI: 0.13-0.85). Conclusion: Postmenopausal women experienced coronary revascularization comparable to those in men at enrollment, despite the average age of postmenopausal women was 7 years older than that of men. Postmenopausal women exhibit better clinical outcomes than those of men if optimal treatment is provided.

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Metabolic flexibility in postmenopausal women: Hormone replacement therapy is associated with higher mitochondrial content, respiratory capacity, and lower total fat mass

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Aim: To investigate effects of hormone replacement therapy in postmenopausal women on factors associated with metabolic flexibility related to whole-body parameters including fat oxidation, resting energy expenditure, body composition and plasma concentrations of fatty acids, glucose, insulin, cortisol, and lipids, and for the mitochondrial level, including mitochondrial content, respiratory capacity, efficiency, and hydrogen peroxide emission. Methods: 22 postmenopausal women were included. 11 were undergoing estradiol and progestin treatment (HT), and 11 were matched non-treated controls (CONT). Peak oxygen consumption, maximal fat oxidation, glycated hemoglobin, body composition, and resting energy expenditure were measured. Blood samples were collected at rest and during 45 min of ergometer exercise (65% VO2 peak). Muscle biopsies were obtained at rest and immediately post-exercise. Mitochondrial respiratory capacity, efficiency, and hydrogen peroxide emission in permeabilized fibers and isolated mitochondria were measured, and citrate synthase (CS) and 3-hydroxyacyl-CoA dehydrogenase (HAD) activity were assessed. Results: HT showed higher absolute mitochondrial respiratory capacity and post-exercise hydrogen peroxide emission in permeabilized fibers and higher CS and HAD activities. All respiration normalized to CS activity showed no significant group differences in permeabilized fibers or isolated mitochondria. There were no differences in resting energy expenditure, maximal, and resting fat oxidation or plasma markers. HT had significantly lower visceral and total fat mass compared to CONT. Conclusion: Use of hormone therapy is associated with higher mitochondrial content and respiratory capacity and a lower visceral and total fat mass. Resting energy expenditure and fat oxidation did not differ between HT and CONT.

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Bone health in women with premature ovarian insufficiency/early menopause: a 23-year longitudinal analysis

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Eight thousand six hundred and three women were included: 610 (7.1%) with POI/EM. Mean (SD) baseline age was 47.6 (1.45) years in the entire cohort and mean (SD) age of menopause was 38.2 (7.95) and 51.3 (3.04) years in women with POI/EM and usual age menopause, respectively (P < 0.001). Over the 23 years, of women with POI/EM, 303 (49.7%) had osteoporosis/fractures, 421 (69.0%) had DXA screening, 474 ever used MHT (77.7%), and 116 (39.1%) of those with osteoporosis/fractures used anti-osteoporosis medication. Of women with usual age menopause, 2929 (36.6%) had osteoporosis/fractures, 4920 (61.6%) had DXA screening, 4014 (50.2%) used MHT, and 964 (33.0%) of those with osteoporosis/fractures used anti-osteoporosis medication. Compared to women with menopause at age ≥45 years and after adjusting for other risk factors, women with POI/EM had increased risk of osteoporosis (odds ratio [OR] 1.37; 95% CI 1.07-1.77), fractures (OR 1.45; 1.15-1.81), DXA testing (OR 1.64; 1.42-1.90), MHT use (OR 6.87; 5.68-8.30), and anti-osteoporosis medication use (OR 1.50; 1.14-1.98). In women with POI/EM women, increasing age was associated with greater risk of osteoporosis/fracture (OR 1.09; 1.08-1.11), and MHT prior to or at study entry (aged 45-50 years), was protective (OR 0.65, 0.45-0.96). In women with POI/EM, age (OR 1.11; 1.10-1.12), fractures (OR 1.80, 1.38-2.34), current smoking (OR 0.60; 0.43-0.86), and inner (OR 0.68; 0.53-0.88) or outer regional (OR 0.63; 0.46-0.87) residential location were associated with DXA screening. In women with POI/EM, increasing age (OR 1.02; 1.01-1.02), and currently consuming alcohol (OR 1.17; 1.06-1.28), was associated with having ever used MHT. In the 299 women with POI/EM and osteoporosis/fractures, only 39.1% ever received treatment with an anti-osteoporosis medication. Increasing age (OR 1.07; 1.04-1.09) and lower BMI (OR 0.95; 0.92-0.98) were associated with greater likelihood of treatment with anti-osteoporosis medication. This study supports previous literature indicating increased risk of osteoporosis and fractures in women with POI, and adds evidence for women with POI/EM, where there was a relative paucity of data. In these women, using MHT prior to or at study entry, aged 45-50 years, was protective for osteoporosis/fractures; however, having ever used MHT was not, highlighting the importance of early treatment with MHT in these women to preserve bone strength. Although women with POI/EM and osteoporosis or fractures were more likely to use anti-osteoporosis medications than those with usual age menopause, overall treatment rates are low at <40%, demonstrating a significant treatment gap that should be addressed to reduce future fracture risk.

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Eligibility criteria for using menopausal hormone therapy in breast cancer survivors: a safety report based on a systematic review and meta-analysis

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Importance: Menopause hormone therapy (MHT) effectively alleviates menopausal symptoms. However, it is generally not recommended for breast cancer survivors, although the scientific evidence is scarce. Objective: This study aimed to establish eligibility criteria for use of the MHT in breast cancer survivors based on a systematic review and meta-analysis of the literature. Evidence review: We conducted exhaustive literature searches until June 2022 in MEDLINE, The Cochrane Library, and EMBASE, using a tailored strategy with a combination of controlled vocabulary and search terms related to breast cancer survivors and MHT. We followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines and assessed the risk of bias using the Cochrane and Risk of Bias in Non-randomized Studies - of Interventions tools. The quality of the evidence was graded according to grading quality of evidence and strength of recommendations criteria (A, high; B, moderate; C, low; and D, very low). We categorized MHT use into four levels: category 1 (no restrictions on use), category 2 (the benefits outweigh the risks), category 3 (the risks generally outweigh the benefits), and category 4 (MHT should not be used). Findings: A total of 12 studies met the eligibility criteria. Analysis of the three randomized clinical trials using combined MHT or tibolone revealed no significant differences concerning tumor recurrence (relative risk [RR], 1.46; 95% CI, 0.99-2.24). A combined analysis of randomized clinical trials, prospective, and retrospective trials found no elevated risk of recurrence (RR, 0.85; 95% CI, 0.54-1.33) or death (RR, 0.91; 95% CI, 0.38-2.19). The eligibility criteria for patients with hormone receptor (HR)-positive tumors fell into categories 3B and 3C for combined MHT or estrogen alone and 4A for tibolone. For HR-negative tumors, the category was 2B and 2C. Conclusions and relevance: Our findings suggest that MHT could be a viable treatment alternative for breast cancer survivors experiencing menopausal symptoms, especially those with HR-negative tumors. Personalized management is recommended for each peri/postmenopausal woman facing a diminished quality of life because of menopause symptoms. Further randomized trials are needed before considering changes to current standards of care.

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Age at natural or surgical menopause, all-cause mortality, and lifespan among postmenopausal women in the United States

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Objective: This study investigated the association of age at natural menopause with or without undergoing hysterectomy and/or bilateral oophorectomy after menopause and age at surgical menopause with all-cause mortality and lifespan in postmenopausal women. Methods: The data stemmed from the National Health and Nutrition Examination Survey (NHANES) (1999-2018) and NHANES III (1988-1994), including 14,161 postmenopausal women over 40. Cox proportional hazard models were used to estimate unadjusted and adjusted hazard ratios (HRs) (95% confidence intervals [CIs]). We also used Cox proportional hazard models with penalized splines to depict the association between continuous age at menopause and all-cause mortality and nonparametric regression with smoothing splines to illustrate the association between age at menopause and lifespan in deceased participants. Results: The adjusted HRs (95% CIs) for age at natural menopause of <40, 40 to 44, and 55+ years in women without undergoing hysterectomy or bilateral oophorectomy after menopause were 1.48 (1.15-1.91), 1.16 (1.00-1.35), and 0.91 (0.77-1.07) compared with age at natural menopause of 45 to 54, respectively. The respective HRs (95% CIs) for age at surgical menopause were 1.39 (1.11-1.75), 1.09 (0.86-1.38), and 0.83 (0.53-1.32). However, no significant association was found between age at natural menopause and all-cause mortality among women undergoing hysterectomy and/or bilateral oophorectomy after menopause. When treated as continuous variables, age at natural menopause without undergoing hysterectomy or bilateral oophorectomy after menopause presented inverse and nonlinear associations with all-cause mortality, whereas age at surgical menopause was linearly inversely associated with all-cause mortality. The association between age at menopause and lifespan was linearly positive regardless of menopausal type. Conclusion: Young age at menopause was associated with increased risks of all-cause mortality. The later menopause age was related to a longer lifespan.

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Can we predict menopause and premature ovarian insufficiency?

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The prediction of menopause and premature ovarian insufficiency (POI) involves understanding the factors that contribute to the timing of these events. Menopause is a natural biological process marked by the cessation of menstrual periods, typically occurring around the age of 51. On the other hand, premature ovarian insufficiency refers to the loss of ovarian function before the age of 40. Several factors have been used to predict menopause and POI such as Age,

anti-Müllerian hormone (AMH), inhibins and follicle stimulating hormone (FSH) serum levels, antral follicle counts (AFC), menstrual cycle length and recently some genetic markers. It seems that age has the best predictive power and all the other ones are only adding in a very limited way to the prediction of menopause. Low levels of AMH in young women might indicate a greater risk for POI and could facilitate early diagnosis. It is however, important to note that predicting the exact timing of menopause and POI is challenging, and individual variations are significant. While these factors can provide some insights, they are not foolproof predictors. Advances in medical research and technology may lead to more accurate methods for predicting menopause and POI in the future.

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BMI and breast cancer risk around age at menopause

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Background: A high body mass index (BMI, kg/m2) is associated with decreased risk of breast cancer before menopause, but increased risk after menopause. Exactly when this reversal occurs in relation to menopause is unclear. Locating that change point could provide insight into the role of adiposity in breast cancer etiology. Methods: We examined the association between BMI and breast cancer risk in the Premenopausal Breast Cancer Collaborative Group, from age 45 up to breast cancer diagnosis, loss to follow-up, death, or age 55, whichever came first. Analyses included 609,880 women in 16 prospective studies, including 9956 who developed breast cancer before age 55. We fitted three BMI hazard ratio (HR) models over age-time: constant, linear, or nonlinear (via splines), applying piecewise exponential additive mixed models, with age as the primary time scale. We divided person-time into four strata: premenopause; postmenopause due to natural menopause; postmenopause because of interventional loss of ovarian function (bilateral oophorectomy (BO) or chemotherapy); postmenopause due to hysterectomy without BO. Sensitivity analyses included stratifying by BMI in young adulthood, or excluding women using menopausal hormone therapy. Results: The constant BMI HR model provided the best fit for all four menopausal status groups. Under this model, the estimated association between a five-unit increment in BMI and breast cancer risk was HR=0.87 (95% CI: 0.85, 0.89) before menopause, HR=1.00 (95% CI: 0.96, 1.04) after natural menopause, HR=0.99 (95% CI: 0.93, 1.05) after interventional loss of ovarian function, and HR=0.88 (95% CI: 0.76, 1.02) after hysterectomy without BO. Conclusion: The BMI breast cancer HRs remained less than or near one during the 45-55 year age range indicating that the transition to a positive association between BMI and risk occurs after age 55

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Does menopause hormone therapy improve symptoms of depression? Findings from a specialized menopause clinic

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Objective: Depressive symptoms are commonly reported during the perimenopause and in the early postmenopausal years. Although menopausal hormone therapy (MHT) is considered the most effective treatment option for vasomotor symptoms, its effect on mood-related symptoms is less established. This study aims to assess interval change in depressive symptoms after initiation of MHT treatment in women seeking care at a Canadian specialized menopause clinic. Methods: Women and female-presenting people attending the St. Joseph's Healthcare Menopause Clinic in Hamilton, Ontario, were invited to participate in this study. Participants (n = 170) completed a self-report questionnaire, which included their medical history as well as validated tools for bothersome symptoms at their initial visit. A shortened version was administered at the follow-up visit 3 to 12 months later with the same validated tools. We sought to examine interval changes on the Center for Epidemiological Studies Depression Scale based on type of treatment used and MHT dose, while controlling for relevant demographic variables (smoking, education level, age). Results: There was a high rate of depressive symptoms in those seeking specialized menopause care (62%). MHT use was associated with significantly improved depressive symptoms, both alone and in addition to an antidepressant medication ($P < 0.001$). Younger age, lower education attainment, and smoking were all associated with higher depression scores. Conclusion: This study supports the use of MHT to improve depressive symptoms experienced by those seeking specialized menopause care. Further investigation into timing of treatment initiation may facilitate a personalized treatment approach to improve quality of life of women in the peri- and postmenopausal years.