



Selección de Resúmenes de Menopausia

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Antiresorptive Agents Increase the Effects of Exercise on Preventing Postmenopausal Bone Loss in Women: A Meta-Analysis.

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BACKGROUND AND OBJECTIVES: It remains unknown whether the combination of antiresorptive agents and exercise would generate additive effects on bone mineral density (BMD) in postmenopausal women, though their separate roles in preventing bone loss have been well established. This meta-analysis aimed to evaluate the combined impact of antiresorptive treatment and exercise on the lumbar spine and femoral neck BMD in postmenopausal women compared with an exercise-only intervention. **METHODS:** A systematic literature search of PubMed, EMBASE, SportDiscus and ProQuest up to Jun 2014 was conducted to identify the influence of antiresorptive agents and exercise on BMD in postmenopausal women. The study quality of the included trials was evaluated. The effect sizes were estimated by calculating the standardized mean difference (SMD). Subgroup analyses were conducted by pharmacological regimens and exercise categories. **RESULTS:** Nine studies with a total of 1,248 postmenopausal women met the inclusion criteria. The heterogeneity between the studies was evident at the spine ($I^2 = 78.7\%$) and hip ($I^2 = 41.7\%$) measurements; random-effects models were used in the data analysis. The pooled effect sizes associated with the combined interventions of antiresorptive agents and exercise were significant at the lumbar spine BMD (SMD = 0.511, 95% CI = 0.118-0.904, $p = 0.011$). Combining hormone replacement therapy (HRT) and exercise training generated greater beneficial effects on lumbar spine (SMD = 0.729, 95% CI = 0.186-1.273, $p = 0.009$) and femoral neck BMD (SMD = 0.220, 95% CI = 0.0110-0.429, $p = 0.039$) than the exercise-only intervention. Impact exercise was sensitive to antiresorptive agents in preventing postmenopausal bone loss both at the spine (SMD = 1.252, 95%CI = 0.465-2.039, $p = 0.002$) and hips (SMD = 0.414, 95%CI = 0.106-0.723, $p = 0.008$). **CONCLUSIONS:** Our findings indicate that antiresorptive agents significantly increase the impact of exercise on the prevention of bone loss in postmenopausal women, which implies that the combination of antiresorptive agents and exercise may generate additive effects.

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US Preventative Services Task Force FRAX threshold has a low sensitivity to detect osteoporosis in women ages 50-64 years.

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The US Preventative Services Task Force (USPSTF) recommends consideration for screening for osteoporosis in women under age 65 who have an estimated 10-year major osteoporotic fracture risk of 9.3 % or higher. We found that this threshold for osteoporosis screening in women ages 50-64 years old has a low sensitivity to detect osteoporosis. **INTRODUCTION:** The US Preventative Services Task Force (USPSTF) recommends consideration of dual-energy X-ray absorptiometry (DXA) in women under ages 50-64 with a major osteoporotic fracture (MOF) risk of 9.3 % or higher, as estimated by the fracture risk assessment tool (FRAX) tool. We assessed the performance of the 9.3 % MOF risk threshold for detecting osteoporosis and evaluated whether DXA indication appeared appropriate, based on USPSTF criteria and other risk factors, at our institution. **METHODS:** We performed a retrospective record review of women ages 50-64.5 years old to determine clinical factors and FRAX scores of women undergoing a DXA at our institution over a 6-month period after the USPSTF recommendations were released and evaluated the sensitivity and specificity of the 9.3 % MOF threshold to detect densitometric osteoporosis. Additionally, using the USPSTF criteria and several additional risk factors, we evaluated the extent of potentially inappropriate DXA use in women ages 50 to 64 years in a large primary care practice in an academic medical center. **RESULTS:** The analysis included 465 DXA tests. The overall sensitivity and specificity of a FRAX-calculated MOF risk $\geq 9.3\%$ was 37 and 74 %, respectively, for the detection of osteoporosis. The receiver operator characteristic curve (ROC) demonstrated an area under the curve of 0.58. Lowering the FRAX risk threshold to 5.5 % would increase the sensitivity of detecting osteoporosis in our population from 37 to 80 % while reducing the specificity from 74 to 27 %. Out of 465 DXAs, 371 (79.8 %) were classified as appropriately ordered per our pre-

specified criteria. Of the 120 women with osteoporosis at the hip and/or spine based on T-score values of -2.5 or less, 14 DXAs (11.7 %) were classified as potentially inappropriate based on a FRAX-predicted MOF risk less than 9.3 % and lack of additional pre-specified risk factors. **CONCLUSION:** We found that the USPSTF-recommended MOF risk threshold of 9.3 % for osteoporosis screening in women ages 50-64 years old has a low sensitivity to detect osteoporosis.

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Dehydroepiandrosterone for women in the peri- or postmenopausal phase.

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BACKGROUND: During menopause a decreasing ovarian follicular response generally causes a fluctuation and eventual decrease in estrogen levels. This can lead to the development of various perimenopausal and postmenopausal symptoms (for example hot flushes, night sweats, vaginal dryness). Dehydroepiandrosterone (DHEA) is one of the main precursors of androgens, which in turn are converted to testosterone and estrogens. It is possible that the administration of DHEA may increase estrogen and testosterone levels in peri- and postmenopausal women to alleviate their symptoms and improve general wellbeing and sexual function (for example libido, dyspareunia, satisfaction). Treatment with DHEA is controversial as there is uncertainty about its effectiveness and safety. This review should clearly outline the evidence for DHEA in the treatment of menopausal symptoms and evaluate its effectiveness and safety by combining the results of randomised controlled trials. **OBJECTIVES:** To assess the effectiveness and safety of administering DHEA to women with menopausal symptoms in the peri- or postmenopausal phase. **SEARCH METHODS:** The databases that we searched (3 June 2014) with no language restrictions applied were the Cochrane Menstrual Disorders and Subfertility Group Specialised Register, Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, PsycINFO, CINAHL and LILACS. We also searched conference abstracts and citation lists in the ISI Web of Knowledge. Ongoing trials were searched in the trials registers. Reference lists of retrieved articles were checked. **SELECTION CRITERIA:** We included randomised controlled trials comparing any dose and form of DHEA by any route of administration versus any other active intervention, placebo or no treatment for a minimal treatment duration of seven days in peri- and postmenopausal women. **DATA COLLECTION AND ANALYSIS:** Two authors independently extracted data after assessing eligibility for inclusion and quality of studies. Authors were contacted for additional information. **MAIN RESULTS:** Twenty-eight trials with 1273 menopausal women were included in this review. Data could be extracted from 16 trials to conduct the meta-analysis. The overall quality of the studies was moderate to low with the majority of studies that were included in the meta-analysis having reasonable methodology. Compared to placebo, DHEA did not improve quality of life (standardised mean difference (SMD) 0.16, 95% confidence interval (CI) -0.03 to 0.34, $P = 0.10$, 8 studies, 287 women (132 from parallel and 155 from crossover trials), $I^2 = 0\%$, moderate quality evidence; one trial of the nine that reported on this outcome was removed in a sensitivity analysis as it was judged to be at high risk of bias). DHEA was found to be associated with androgenic side effects (mainly acne) (odds ratio (OR) 3.77, 95% CI 1.36 to 10.4, $P = 0.01$, 5 studies, 376 women, $I^2 = 10\%$, moderate quality evidence) when compared to placebo. No associations were found with other adverse effects. It was unclear whether DHEA affected menopausal symptoms as the results from the trials were inconsistent and could not easily be pooled to provide an overall effect due to different types of measurement (for example continuous, dichotomous, change and end scores). DHEA was found to improve sexual function (SMD 0.31, 95% CI 0.07 to 0.55, $P = 0.01$, 5 studies, 261 women (239 women from parallel trials and 22 women from crossover trials), $I^2 = 0\%$; one trial judged to be at high risk of bias was removed during sensitivity analysis) compared to placebo. There was no difference in the acne associated with DHEA when comparing studies that used oral DHEA (OR 2.16, 95% CI 0.47 to 9.96, $P = 0.90$, 3 studies, 136 women, $I^2 = 5\%$, very low quality evidence) to one study that used skin application of DHEA (OR 2.74, 95% CI 0.10 to 74.87, $P = 0.90$, 1 study, 22 women, very low quality evidence). The effects did not differ for sexual function when studies using oral DHEA (SMD 0.11, 95% CI -0.13 to 0.35, $P = 0.36$, 5 studies, 340 women, $I^2 = 0\%$) were compared to a study using intravaginal DHEA (SMD 0.42, 95% CI 0.03 to 0.81, 1 study, 218 women). Test for subgroup differences: $\text{Chi}^2 = 1.77$, $\text{df} = 1$ ($P = 0.18$), $I^2 = 43.4\%$. Insufficient data were available to assess quality of life and menopausal symptoms for this comparison. There were insufficient data available to compare the effects of DHEA to hormone therapy (HT) for quality of life, menopausal symptoms, and adverse effects. No large differences in treatment effects were found for sexual function when comparing DHEA to HT (mean difference (MD) 1.26, 95% CI -0.21 to 2.73, $P = 0.09$, 2 studies, 41 women, $I^2 = 0\%$). **AUTHORS' CONCLUSIONS:** There is no evidence that DHEA improves quality of life but there is some evidence that it is associated with androgenic side effects. There is uncertainty whether DHEA decreases menopausal symptoms, but DHEA may slightly improve sexual function compared with placebo.

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Secondary hyperparathyroidism and its relationship with sarcopenia in elderly women.

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Low dietary intake of calcium and poor vitamin D status during aging can result in mild secondary hyperparathyroidism, which may be associated with low muscle mass and reduced strength in the elderly. The aim of this study was to investigate whether low vitamin D, high parathormone (PTH), or both, are associated with sarcopenia. A total of 105 women, 35 with sarcopenia and 70 without sarcopenia, were enrolled in the present study. Body composition measurements were performed by DXA and sarcopenia was defined as skeletal muscle mass index < 5.45 kg/m² and grip strength lower than 20 kg. Three-day dietary records were taken and adjustments for energy intake made. The estimated average requirement (EAR) method was adopted as a cut-off point for estimating the prevalence of inadequate intake. Serum total calcium, phosphorus, creatinine, intact PTH, and 25(OH)D were measured. Only 1% of the patients met the daily adequate intake for vitamin D and 11% met the daily adequate intake for calcium. Notably, the prevalence of sarcopenia was higher in hyperparathyroidism (25(OH)D < 20 ng/mL and PTH > 65 pg/dL) than in the absence of hyperparathyroidism (41.2 vs 16.2%, respectively; p = 0.046). The odds ratio for sarcopenia in hyperparathyroidism cases was 6.81 (95% CI 1.29-35.9) compared with participants who had low PTH and a high 25(OH)D concentration. The present study showed that vitamin D insufficiency associated with secondary hyperparathyroidism increased the risk of sarcopenia, suggesting that the suppression of hyperparathyroidism by ensuring adequate calcium and vitamin D intake should be considered in interventional studies to confirm potential benefits.