
Trabecular bone score (TBS) as a noninvasive and complementary tool for clinical diagnosis of bone structure in endocrine disorders.

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Trabecular bone score (TBS) index has recently been obtained as a result of textural greyscale analysis of DXA images. Because it enables the assessment of bone microarchitectural texture, TBS may be useful in evaluating bone quality. This study explores the current knowledge of the use of TBS in patients with endocrine disorders with co-occurring bone structure changes. Currently, the clinical importance TBS was verified in terms of disorders of the growth hormone/insulin-like growth factor 1 (GH/IGF-1) axis, glucocorticoid excess, thyroid and parathyroid disease, as well as in diabetes mellitus type 1 and 2. It has been clarified that patients suffering from various endocrinopathies are a group in which TBS should be used routinely because it correlates with clinical factors and may improve patient management in various endocrine disorders.


Low rate of densitometric diagnosis and treatment in patients with severe osteoporosis in Colombia.

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Our study describes the clinical characteristics of patients with fragility fractures. It also shows there is a low knowledge about osteoporosis and its relation to fractures, in addition to the very poor adherence to medical advice and treatment. INTRODUCTION: Osteoporosis is a systemic skeletal disease associated with an increased risk of fragility fractures and is a public health problem worldwide due to population aging. Early osteoporosis diagnosis and treatment is very important for reducing the incidence of fragility fractures and the resulting complications. Our study describes the clinical characteristics of patients with fragility fractures and their risk factors, evaluates the level of knowledge that patients have about osteoporosis, and follows-up on each case to establish if, after the fracture, a densitometric diagnosis was made and the patient received specific treatment in his outpatient follow-up through his health insurance plan. METHODS: A descriptive cross-sectional study was carried out in a university hospital in Bogotá, Colombia. The data was collected by means of a questionnaire, administered to all patients admitted by the orthopedic emergency department with a diagnosis of fragility fracture. After discharge, a telephone follow-up was done every 3 months for 1 year, and patients were asked if they had already had the dual X-ray absorptiometry (DXA) scan and if they had begun osteoporosis treatment. RESULTS: A total of 111 patients with an average age of 74.4 years (± 11.3 years), of which 84 (75.6%) were women, all consulted for osteoporotic fracture at the orthopedic emergency department of the hospital. Hip fracture was the most frequent (51.4%), followed by vertebral (23.4%), wrist (22.5%), and humerus (4.5%) fracture. A total of 49.5% (n = 55) of the patients did not know what osteoporosis is; 58.6% (n = 65) did not know that fracture is the main complication of this disease, and 62.2% (n = 69) did not associate fractures with osteoporosis. All patients were educated about osteoporosis and the importance of diagnosing and treating it. Patients were given a medical order to have a DXA scan upon discharge; however, only 24.3% (n = 27) had the DXA scan in the first year of the fracture. A total of 33.3% (n = 37) received calcium plus vitamin D, and only 9.9% (n = 11) received osteoporosis treatment (7 bisphosphonate patients and 4 denosumab). No patient received osteoformative therapy. CONCLUSIONS: Our study shows that Colombian patients have little knowledge about osteoporosis and its relationship with fragility fractures. It also shows that densitometries are not done and, what is worse, patients with a diagnosis of fracture have limited access to treatment after discharge.


Blood pressure in postmenopausal women with a history of polycystic ovary syndrome.

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Polycystic ovarian syndrome (PCOS) is the most common endocrine disorder at reproductive age, affecting 6-10% of females in this group. The aetiology of this syndrome is not fully understood. Genetics, endocrinology factors, and the influence of the environment are possible causes of this syndrome. PCOS is characterised by menstrual disorders, hyperandrogenism, and abnormalities in ovarian morphology as well as metabolic disorders. PCOS increases the risk of overweight and obesity, diabetes, endometrial cancer, and cardiovascular diseases such as hypertension along with all its long-term consequences. There are limited studies about cardiovascular disorders, especially hypertension, in postmenopausal women with a history of PCOS. The presented paper is an attempt to briefly summarise literature data concerning the influence of this disease on the incidence of hypertension and blood pressure control in postmenopausal women. Women with PCOS more often present features of metabolic syndrome and have increased cardiovascular risk factors including hypertension. The prevalence of hypertension is 2.5 times higher than in corresponding healthy peers. Furthermore, hyperandrogenaemia is associated with elevated blood pressure independent of the patient's age, insulin resistance, obesity, and dyslipidaemia. In view of this, these patients should be thoroughly screened for hypertensive disorders and educated about the lifestyle modifications that could prevent hypertension later in life.

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**Variations in 25-Hydroxyvitamin D in Countries from the Middle East and Europe: The Roles of UVB Exposure and Diet.**
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Serum 25-hydroxyvitamin D (25(OH)D) has been largely associated with latitude and sunshine exposure across several regions. According to previous results, 25(OH)D concentrations are, on average, relatively low in countries with abundant sunshine, including those of the Middle East and North Africa region, as well as lower-latitude Europe. The standard explanation for this phenomenon is that people wear concealing clothing because of cultural and religious practices and that high temperatures in summer limit direct sun exposure. However, the role of diet in the development of profound hypovitaminosis D has not been adequately explored in those countries. To examine how diet affects vitamin D status in the Middle Eastern and European countries, a search was conducted for papers from that region reporting 25(OH)D concentrations. Papers were sought that reported summertime and wintertime 25(OH)D concentrations for healthy nonpregnant adults representative of the entire population. Data from 15 Middle Eastern and European countries were found through this search. Data for postmenopausal women from 19 European countries were also obtained. Dietary supply data for animal products containing vitamin D (animal fat, eggs, ocean fish, animal meat, and milk) were obtained from the Food and Agriculture Organization of the United Nations. Latitude and a solar UVB dose index also were obtained for each country. For the 15-country study, energy from dietary factors was highly correlated with latitude, making it difficult to separate the effects of UVB exposure and dietary factors. However, for the 19-country study, dietary factors were only weakly correlated with latitude. In that study, ocean fish was the most important single dietary factor affecting serum 25(OH)D concentration for postmenopausal women in various European countries, but animal fat and meat also contributed. Because this is an ecological study, further research is encouraged to evaluate and extend the findings.

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**The association between sarcopenia and osteoporotic vertebral compression refractures.**
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Sarcopenia was reported to be significantly associated with osteoporosis. In this study, we reported for the first time that sarcopenia was an independent risk predictor of osteoporotic vertebral compression refractures (OVCRFs). Other risk factors of OVCRFs are low bone mass density T-scores, female sex, and advanced age. INTRODUCTION: The purpose of this study was to investigate the association between osteoporotic vertebral compression refractures (OVCRFs) and sarcopenia, and to identify other risk factors of OVCRFs. METHODS: We evaluated 237 patients with osteoporotic vertebral compression fracture who underwent percutaneous kyphoplasty (PKP) in our hospital from August 2016 to December 2017. To diagnose sarcopenia, a cross-sectional computed tomography (CT) image at the inferior aspect of the third lumbar vertebra (L3) was selected for estimating muscle mass. Grip strength was used to assess muscle strength. Possible risk factors, such as age, sex, body mass index (BMI), bone mineral density (BMD), location of the treated vertebra, anterior-posterior ratio (AP ratio) of the fractured vertebra, cement leakage, and vacuum clefts, were assessed. The multivariable analysis was used to determine the risk factors of OVCRFs.
RESULTS: During the follow-up period, OVCRFs occurred in 64 (27.0%) patients. Sarcopenia was present in 48 patients (20.3%), including 21 OVCRFs and 27 non-OVCRFs patients. Sarcopenia was significantly correlated with advanced age, lower BMI, lower BMD, and hypoalbuminemia. Compared with non-sarcopenic patients, sarcopenic patients had higher OVCRFs risk. In univariate analysis, sarcopenia (p = 0.003), female (p = 0.024), advanced age (≥ 75 years; p < 0.001), lower BMD (p < 0.001), lower BMI (p = 0.01), TL junction (vertebral levels at the thoracolumbar junction) (p = 0.01), cardiopulmonary comorbidity (p = 0.042), and hypoalbuminemia (p = 0.003) were associated with OVCRFs. Multivariable analysis revealed that sarcopenia (OR 2.271; 95% CI 1.069-4.824, p = 0.033), lower BMD (OR 1.968; 95% CI 1.350-2.868, p < 0.001), advanced age (≥ 75 years; OR 2.431; 95% CI 1.246-4.744, p = 0.009), and female sex (OR 4.666; 95% CI 1.400-15.552, p = 0.012) were independent risk predictors of OVCRFs.

CONCLUSIONS: Sarcopenia is an independent risk predictor of osteoporotic vertebral compression refractures. Other factors affecting OVCRFs are low BMD T-scores, female sex, and advanced age.

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Background and Objectives: Hot flushes and sleep disturbances are the most common vasomotor symptoms (VMS) reported by postmenopausal women. Hormonal treatment is to date referred to as the gold standard approach but not suitable for all the patients. Alternative treatments are needed in case of a contraindication to menopausal hormone therapy (MHT), adverse side effects, and poor compliance. Paroxetine salt is the only nonhormonal medication approved by the US Food and Drug Administration for the management of VMS. Nonetheless, few trials with low consensus are available about this topic. In this review, we aimed to evaluate the efficacy of low-dose paroxetine therapy in the treatment of vasomotor hot flushes and night sleep disturbances in postmenopausal women. Materials and Methods: We performed an electronic search from the beginning of all databases to July 2019. All results were then limited to a randomized trial. Restrictions for language or geographic location were not utilized. Inclusion criteria were randomized clinical trials of physiological or surgical postmenopausal women experiencing hot flushes and sleep disturbances who were randomized to either low-dose paroxetine or placebo (i.e., formulations without active ingredients). The primary outcome evaluated was the mean weekly reduction of hot flushes. Results: Five randomized clinical trials, including 1482 postmenopausal women, were analyzed. Significant heterogeneity (I2 = 90%) between studies was noted. Hot flushes episodes were significantly reduced in the treatment arm compared to placebo (mean difference (MD) -7.97 [-10.51, -5.92] episodes/week). Results on the improvement on sleep were limited by being reported in only two studies; however, no significant reduction of night-time awakenings was observed (MD, -0.40 awakenings/night [-1.38, 0.58 CI]). Conclusions: Low-dose paroxetine is an effective treatment for vasomotor menopause symptoms, including hot flushes.

US Preventive Services Task Force, Owens DK1,2, Davidson KW3, Krist AH4,5, Barry MJ6, Cabana M7, et al.
Importance: Breast cancer is the most common nonskin cancer among women in the United States and the second leading cause of cancer death. The median age at diagnosis is 62 years, and an estimated 1 in 8 women will develop breast cancer at some point in their lifetime. African American women are more likely to die of breast cancer compared with women of other races. Objective: To update the 2013 US Preventive Services Task Force (USPSTF) recommendation on medications for risk reduction of primary breast cancer. Evidence Review: The USPSTF reviewed evidence on the accuracy of risk assessment methods to identify women who could benefit from risk-reducing medications for breast cancer, as well as evidence on the effectiveness, adverse effects, and subgroup variations of these medications. The USPSTF reviewed evidence from randomized trials, observational studies, and diagnostic accuracy studies of risk stratification models in women without preexisting breast cancer or ductal carcinoma in situ. Findings: The USPSTF found convincing evidence that risk assessment tools can predict the number of cases of breast cancer expected to develop in a population. However, these risk assessment tools perform modestly at best in discriminating between individual women who will or will not develop breast cancer. The USPSTF found convincing
evidence that risk-reducing medications (tamoxifen, raloxifene, or aromatase inhibitors) provide at least a moderate benefit in reducing risk for invasive estrogen receptor-positive breast cancer in postmenopausal women at increased risk for breast cancer. The USPSTF found that the benefits of taking tamoxifen, raloxifene, and aromatase inhibitors to reduce risk for breast cancer are no greater than small in women not at increased risk for the disease. The USPSTF found convincing evidence that tamoxifen and raloxifene and adequate evidence that aromatase inhibitors are associated with small to moderate harms. Overall, the USPSTF determined that the net benefit of taking medications to reduce risk of breast cancer is larger in women who have a greater risk for developing breast cancer. Conclusions and Recommendation: The USPSTF recommends that clinicians offer to prescribe risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, to women who are at increased risk for breast cancer and at low risk for adverse medication effects. (B recommendation) The USPSTF recommends against the routine use of risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, in women who are not at increased risk for breast cancer. (D recommendation) This recommendation applies to asymptomatic women 35 years and older, including women with previous benign breast lesions on biopsy (such as atypical ductal or lobular hyperplasia and lobular carcinoma in situ). This recommendation does not apply to women who have a current or previous diagnosis of breast cancer or ductal carcinoma in situ.


Long-term risk of de novo mental health conditions after hysterectomy with ovarian conservation: a cohort study.
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OBJECTIVE: The aim of this research was to study the long-term risk of de novo mental health conditions in women who underwent hysterectomy with bilateral ovarian conservation compared with age-matched referent women.
METHODS: Using the Rochester Epidemiology Project records-linkage system, we identified a historical cohort of 2,094 women who underwent hysterectomy with ovarian conservation for benign indications at age ≥18 years and with an index date between 1980 and 2002 in Olmsted County, Minnesota. Each woman was age-matched (±1 y) to a referent woman residing in the same county who had not undergone hysterectomy or any oophorectomy before the index date. These two cohorts were followed historically to identify de novo mental health conditions. We estimated hazard ratios (HRs) and 95% confidence intervals (95% CIs) using Cox proportional hazards models adjusted for 20 preexisting chronic conditions and other potential confounders. We also calculated absolute risk increases (ARIs) and reductions (ARRs) at 30 years of follow-up. RESULTS: Over a median follow-up of 21.9 years, women who underwent hysterectomy at any age experienced increased risks of de novo depression (adjusted HR 1.26; 95% CI, 1.12-1.41; ARI 6.6%) and anxiety (adjusted HR 1.22; 95% CI, 1.08-1.38; ARI 4.7%). The association for depression increased significantly with younger age at hysterectomy, but did not vary significantly by indication. Interactions were not significant for anxiety. CONCLUSIONS: Hysterectomy, even with ovarian conservation, is associated with an increased long-term risk of de novo depression and anxiety, especially when performed in women who are younger.