



Selección de Resúmenes de Menopausia

Semana del 15 al 21 de abril de 2020

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J Frailty Sarcopenia Falls. 2018 Sep 1;3(3):148-154. doi: 10.22540/JFSF-03-148. eCollection 2018 Sep.

Current and Former Smokers and Hip Fractures

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The purpose of this review is to examine the correlation between tobacco smoking and hip fractures. The literature that was used for this article was based on studies that investigated not only the direct correlation between smoking and hip fractures but also the effect of smoking on bone mineral density. In general, the incidence of hip fracture was found to be higher in current smokers in both genders. Compared with never smokers, former smokers had a slightly higher risk of hip fracture that was inversely proportional to the cessation span. The relative risk (RR) of hip fracture in current male smokers was higher than the RR for nonsmokers (never and former smokers). In postmenopausal women former and current smoking increased the RR. In premenopausal and postmenopausal women, cessation of smoking decreases the risk of hip fracture. Risk rises with greater cigarette consumption. Risk declines among former smokers, but the benefit is not observed until 10 years after cessation.

Osteoporos Int . 2020 Apr 16. doi: 10.1007/s00198-020-05410-3. Online ahead of print.

Osteoporosis Care After Distal Radius Fracture Reduces Subsequent Hip or Spine Fractures: A 4-year Longitudinal Study

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We evaluated whether active osteoporosis care in patients experiencing their first distal radius fracture (DRF) reduces subsequent hip or spine fractures by comparing two cohorts. The incidence of subsequent fractures was significantly lower in the active care cohort than the other cohort in 4-year follow-up. Purpose: Studies show that osteoporosis care in patients with osteoporotic fracture reduces subsequent fractures, but the impact of such active care in patients with distal radius fracture (DRF) has not been well studied. We evaluated how much osteoporosis care in patients experiencing their first DRF can reduce subsequent hip or spine fractures at 4-year follow-up. Methods: Active osteoporosis care by orthopedic surgeons for patients with DRF started from September 2009 at our institution, thus we had a unique opportunity to compare the two cohorts: pre-involvement (PreI) group (DRF before September 2009) and post-involvement (PostI) group (DRF from September 2009). We compared the two cohorts for subsequent hip or spine fracture incidence in the 4 years following DRF. Results: Overall, 1057 patients with a DRF (85% women; mean age, 70 years) were studied, of whom 205 patients were in PreI group and 852 in PostI group. Subsequent fractures occurred in 27 patients (2.6%), with a mean interval of 29 months after DRF. The incidence was significantly lower in the PostI group than in the PreI group (1.9% vs. 5.4%, $p = 0.004$), especially in hip fractures (0.4% vs. 2.9%, $p = 0.002$). The relative risk reduction was 65% for all subsequent fractures and 86% for hip fractures. Conclusion: This study demonstrates that active osteoporosis care in patients with DRF significantly reduces subsequent fracture incidence even for the 4-year follow-up period. These findings add an evidence for the current proactive osteoporosis care programs such as fracture liaison services.

Cancer Epidemiol Biomarkers Prev. 2020 Apr 16;cebp.0038.2020. doi: 10.1158/1055-9965.EPI-20-0038. Online ahead of print.

Hormone Replacement Therapy, Breast Cancer Risk Factors and Breast Cancer Risk: A Nationwide Population-Based Cohort

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Background: Hormone replacement therapy (HRT) increases the risk of breast cancer, but the association may vary according to patient factors. We investigated the association between HRT and breast cancer in a nationwide cohort with risk stratification according to risk factors for breast cancer. Methods: Using the Korean National Health Insurance Service database, 4,558,376 postmenopausal women who underwent breast cancer screening and regular health checkups from 2009 to 2014 were analyzed. Results: A total of 696,084 (15.3%) women reported current or previous HRT use. Breast cancer was newly diagnosed in 26,797 (0.6%) women during a median follow-up of 5.35 years. The hazard ratio (HR) of the risk of breast cancer in HRT users was 1.25 (95% confidence interval [CI] 1.22-1.29) compared

to HRT non users. The risk of breast cancer increased according to HRT duration (adjusted HR [95% CI] 1.08 [1.04-1.12] for < 2 years, 1.33 [1.25-1.40] for 2 to < 5 years, and 1.72 [1.63-1.82] for \geq 5 years). This effects of HRT on breast cancer risk applied to both invasive and in situ cancer. The HRT related risk of breast cancer was higher in women who were leaner and those who had dense breasts. Conclusion: This nationwide population-based study confirms the association between HRT use and breast cancer risk. The risk increased proportionally with duration of HRT and differed according to obesity and breast density. Impacts: Risk stratification would be useful when deciding whether to apply HRT for relief of menopausal symptoms.

Climacteric. 2020 Apr 15;1-7.doi: 10.1080/13697137.2020.1742683. Online ahead of print.

Sexual Function Through Decades: Association With Androgens and Cardiometabolic Features

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Aim: This study aimed to determine the change in sexual function among Turkish women through decades and to define the association between sexual dysfunction and androgens and cardiometabolic features. **Materials and methods:** A total of 206 postmenopausal women aged 50-69 years and 210 premenopausal women aged 30-49 years who applied to menopause and gynecology clinics at a university-affiliated education and research hospital were included in this prospective study. Groups were constructed according to decades (i.e., 30-39, 40-49, 50-59, and 60-69 years). Sexual function was assessed between the groups, using the Female Sexual Function Index (FSFI). Cardiometabolic features and androgen levels were also compared between the groups. **Results:** Sexual function determined at each decade by FSFI scores were 27.18, 23.11, 18.40, and 11.35, respectively (fourth, fifth, sixth, and seventh decade). Desire, arousal, and satisfaction domains tended to be lower in the 40s than in the 30s. As time passes after the 30s, the total FSFI score decreased until the late 60s. Serum total testosterone, androstenedione, and dehydroepiandrosterone sulfate (DHEAS) levels decreased through the decades. There was no correlation between cardiometabolic features, androgens, and FSFI scores. **Conclusion:** According to our survey, sexual function decreases starting at the age of 30 and continues to drop until the late 60s among postmenopausal women. There was no association between sexual dysfunction and androgen levels in premenopausal women. The serum DHEAS level was associated with sexual dysfunction only among postmenopausal women. There was no association between sexual dysfunction and cardiometabolic features in either premenopausal or postmenopausal women.

Clin Endocrinol (Oxf). 2020 Apr 13.doi: 10.1111/cen.14189. Online ahead of print.

Effect of Increased Levothyroxine Dose on Depressive Mood in Older Adults Undergoing Thyroid Hormone Replacement Therapy

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Objective: Depressive mood consequent to hypothyroidism can be reversed with levothyroxine (LT4) replacement therapy. However, it is unclear whether increasing LT4 dose confers additional mood benefits. **Design and patients:** A Single-blinded before-and-after study of 24 patients with hypothyroidism who were aged 65 years or older and undergoing LT4 replacement therapy with stable doses. **Measurements:** Geriatric Depression Scale (GDS-K) and Hyperthyroid Symptom Scale (HSS-K) were assessed at baseline, 3 months after increasing LT4 dose by an additional 12.5 μ g/day, and finally 3 months after returning to the baseline dose. **Results:** Serum thyroid-stimulating hormone (TSH) concentrations decreased at the higher LT4 dose (1.95 ± 2.16 vs 0.47 ± 1.09 mIU/L, $p < 0.001$) and recovered after returning to the baseline dose. Serum-free thyroxine levels and HSS-K scores were unchanged during the study period. GDS-K scores improved on the increased dose (9.5 ± 6.6 vs 7.5 ± 4.7 , $p = 0.029$) and this improvement was maintained after returning to the baseline dose (9.5 ± 6.6 vs 7.4 ± 5.4 , $p = 0.010$). Higher serum TSH was independently associated with both higher GDS-K and depression risk among those with depressive mood (GDS-K > 10) at baseline. **Conclusions:** Depressive mood improves with increased LT4 dose, without significant hyperthyroid symptoms or signs, in older adults undergoing thyroid hormone replacement. These findings suggest the potential for varying the treatment target for hypothyroidism based on mood status, and that low-dose LT4 treatment might be an ancillary treatment for depression.

Meta-AnalysisMedicine (Baltimore). 2020 Apr;99(15):e18964.doi: 10.1097/MD.00000000000018964.

Comparison Between Teriparatide and Bisphosphonates for Improving Bone Mineral Density in Postmenopausal Osteoporosis Patients: A Meta-Analysis

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Background: We performed a systematic review and meta-analysis of the efficacy and safety of teriparatide and bisphosphonates in managing postmenopausal osteoporosis. **Methods:** PubMed, EMBASE, Web of Science, and China National Knowledge Infrastructure were searched for relevant randomized controlled trials that were published before April 2018 and compared teriparatide and bisphosphonates in treating postmenopausal osteoporosis. Stata 12.0 was used for the meta-analysis. The pooled risk ratio (RR) or weighted mean difference and 95% confidence interval (CI) were calculated using a fixed effects or random effects meta-analysis. **Results:** A total of 14 randomized controlled trials were included in this meta-analysis. The teriparatide group was associated with a lower total occurrence of vertebral fractures (RR = 0.55, 95% CI: 0.40-0.77; P = .001) and nonvertebral fractures (RR = 0.65, 95% CI: 0.46-0.90; P = .009) than the bisphosphonate group. Moreover, compared with the bisphosphonate group, the teriparatide group had improved bone mineral density at the lumbar spine and femoral neck at the final follow-up (P < .05). There was no significant difference between the teriparatide and bisphosphonate groups in terms of complications (RR = 1.05, 95% CI: 0.90, 1.22, P = .516). **Conclusions:** Teriparatide significantly reduced the occurrence of vertebral and nonvertebral fractures in osteoporosis patients. More studies should focus on the quality of life of patients using these 2 drugs.

JMIR Med Inform. 2020 Apr 13;8(4):e13657.doi: 10.2196/13657.

Software for the Diagnosis of Sarcopenia in Community-Dwelling Older Adults: Design and Validation Study

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Background: The usual diagnosis of sarcopenia requires a dual-energy x-ray absorptiometry (DXA) exam, which has low accessibility in primary care for Latin American countries. **Objective:** The aim of this study is to design and validate software for mobile devices (Android, IOS) and computers, based on an adapted version of the diagnostic algorithm of sarcopenia proposed by the European Working Group on Sarcopenia in Older People (EWGSOP). **Methods:** Follow-up exams were conducted on 430 community-dwelling Chileans 60 years and older (mean 68.2 years, SD 4.9) participating in the IsaMayor and Alexandros cohorts designed to study sarcopenia and disability associated with obesity, respectively. All the participants from the cohorts were randomly selected from the registries of primary health care centers and, for this study, must have a DXA scan at baseline. The software (HTSMayor) was designed according to an adapted version of the algorithm proposed by the EWGSOP and was divided into four phases: longitudinal validation of diagnostic algorithm of sarcopenia, alpha version, beta version, and release version. The software estimates appendicular skeletal muscle mass (ASM) using an anthropometric equation or DXA measurements with Chilean cut-off points. The predictive validation of the algorithm was estimated, comparing functional limitations (at least one activity of daily living, two instrumental activities of daily living, or three mobility limitations), falls, and osteoporosis at follow-ups in patients with and without sarcopenia at baseline, using adjusted logistic models. **Results:** After a median follow-up of 4.8 years (2078.4 person-years), 37 (9.9%) new cases of sarcopenia, out of the 374 patients without sarcopenia at baseline, were identified (incidence density rate=1.78 per 100 person-years). ASM estimated with the anthropometric equation showed both a high sensitivity and specificity as compared with those estimated by DXA measurements, yielding a concordance of 0.96. The diagnostic algorithm of sarcopenia considered in the software with the equation showed both a high sensitivity (82.1%) and specificity (94.9%) when compared with DXA (reference standard). Adults without sarcopenia (at baseline) showed better physical performance (after approximately 5 years) than adults with sarcopenia. Loss of functionality was greater in adults with sarcopenia (OR 5.0, 95% CI 2.2-11.4) than in adults without sarcopenia. In addition, the risks of falls (OR 2.2, 95% CI 1.1-4.3) and osteoporosis (OR 2.8, 95% CI 1.2-6.6) were higher in older persons with sarcopenia than those without sarcopenia. The measurements and results were completed for the beta and release tests with a mean time of 10 minutes and 11 minutes, respectively. **Conclusions:** We developed and validated a software for the diagnosis of sarcopenia in older Chilean adults that can be used on a mobile device or a computer with good sensitivity and specificity, thus allowing for the development of programs for the prevention, delay, or reversal of this disease. To our knowledge, HTSMayor is the first software to diagnose sarcopenia.