Selección de Resúmenes de Menopausia

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A sex/age anomaly in thermal comfort observed in an office worker field study: A menopausal effect?

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In a field study conducted in office settings in Sydney, Australia, background survey and right-here-right-now thermal comfort questionnaires were collected from a sample of office workers. Indoor environmental observations, including air temperature, mean radiant temperature, air velocity, and relative humidity, were also recorded and matched with each questionnaire according to the time and location. During exploratory data analyses, we observed that female subjects aged over 40 and 50 or younger registered significantly warmer sensations than other subjects, male and female, from other age ranges. To further explore this phenomenon, the sample of building occupants was classified into two groups-women of perimenopausal age (over 40 and 50 or younger) while the remaining respondents served as a reference group for comparison. Women in the perimenopausal age range demonstrated an increased perception of warmth ($p < 0.01$) and expressed thermal dissatisfaction more frequently ($p < 0.01$) than the reference group respondents who were exposed to the same indoor environmental conditions. Furthermore, women of perimenopausal age also expressed preference for cooler thermal environments, that is, lower air temperature ($p < 0.01$) and greater air movement ($p<0.01$) than the reference group, and their thermal neutrality (ie, the room temperature corresponding to a neutral thermal sensation) was approximately 2°C cooler than that of the reference group (20.7°C vs 22.4°C). A potential physiological explanation for the distinct thermal perception of women aged over 40 and 50 or younger observed in this study could stem from menopausal symptoms-the presence of hot flushes and dysregulation of the thermoregulatory system.

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Nmp4, a Regulator of Induced Osteoanabolism, Also Influences Insulin Secretion and Sensitivity

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A bidirectional and complex relationship exists between bone and glycemia. Persons with type 2 diabetes (T2D) are at risk for bone loss and fracture, however, heightened osteoanabolism may ameliorate T2D-induced deficits in glycemia as bone-forming osteoblasts contribute to energy metabolism via increased glucose uptake and cellular glycolysis. Mice globally lacking nuclear matrix protein 4 (Nmp4), a transcription factor expressed in all tissues and conserved between humans and rodents, are healthy and exhibit enhanced bone formation in response to anabolic osteoporosis therapies. To test whether loss of Nmp4 similarly impacted bone deficits caused by diet-induced obesity, male wild-type and Nmp4-/- mice (8 weeks) were fed either low-fat diet or high-fat diet (HFD) for 12 weeks. Endpoint parameters included bone architecture, structural and estimated tissue-level mechanical properties, body weight/composition, glucose-stimulated insulin secretion, glucose tolerance, insulin tolerance, and metabolic cage analysis. HFD diminished bone architecture and ultimate force and stiffness equally in both genotypes. Unexpectedly, the Nmp4-/- mice exhibited deficits in pancreatic β-cell function and were modestly glucose intolerant under normal diet conditions. Despite the β-cell deficits, the Nmp4-/- mice were less sensitive to HFD-induced weight gain, increases in % fat mass, and decreases in glucose tolerance and insulin sensitivity. We conclude that Nmp4 supports pancreatic β-cell function but suppresses peripheral glucose utilization, perhaps contributing to its suppression of induced skeletal anabolism. Selective disruption of Nmp4 in peripheral tissues may provide a strategy for improving both induced osteoanabolism and energy metabolism in comorbid patients.

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The Effect of Teriparatide Treatment on the Risk of Fragility Fractures in Postmenopausal Women with Osteoporosis: Results from the Asian and Latin America Fracture Observational Study (ALAFOS)

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The Asian and Latin America Fracture Observational Study (ALAFOS) is a prospective, observational, single-arm study conducted in 20 countries across Asia, Latin America and the Middle East. ALAFOS evaluated new clinical vertebral and non-vertebral fragility fractures in relation to time on teriparatide, in postmenopausal women with osteoporosis in real-life clinical practice. Clinical fragility fractures, back pain, and health-related quality of life (HRQoL) were recorded in 6-month intervals for ≤ 24 months during teriparatide treatment and up to 12-months post-treatment. Data were analysed with piecewise exponential regression with inverse probability weighting for time to event outcomes and mixed-model repeated measures for back pain and HRQoL. 3054 postmenopausal women started teriparatide and attended ≥ one follow-up visit (mean [SD] age 72.5 [10.4] years). The median (95% CI) time to treatment discontinuation was 22.0 months (21.2, 22.8). During the treatment period, 111 patients (3.6%) sustained 126 clinical fractures (2.98 fractures/100 patient-years). Rates of new clinical fragility fractures were significantly decreased during the > 6-12, > 12-18, and > 18-24-month periods, as compared with the first 6 months of treatment (hazard ratio [HR] 0.57; 95% CI 0.37, 0.88; p = 0.012; HR 0.35; 95% CI 0.19, 0.62; p < 0.001; HR 0.43; 95% CI 0.23, 0.83; p = 0.011; respectively). Patients also reported an improvement in back pain and HRQoL (p < 0.001). These results provide data on the real-world effectiveness of teriparatide in the ALAFOS regions and are consistent with other studies showing reduction of fractures after 6 months of teriparatide treatment. These results should be interpreted in the context of the noncontrolled design of this observational study.

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Protective Role of DHEAS in Age-related Changes in Bone Mass and Fracture Risk

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Purpose: Dehydroepiandrosterone sulfate (DHEAS) from the adrenal cortex substantially decreases with age, which may accelerate osteoporosis. However, the association of DHEAS with bone mineral density (BMD) and fracture is inconclusive. We conducted a Mendelian randomization (MR) analysis to investigate the role of DHEAS in age-related changes in BMD and fracture risk. Methods: Single nucleotide polymorphisms (SNPs) associated with serum DHEAS concentrations were used as instrumental variables (4 SNPs for main analysis; 4 SNPs for men and 5 SNPs for women in sex-related analysis). Summary statistics were obtained from relevant genome-wide association studies. Results: A log-transformed unit (μmol/L) increase in serum DHEAS concentrations was associated with an SD increase in estimated BMD at the heel (estimate, 0.120; 95% CI, 0.081-0.158; P = 9 × 10-10), and decreased fracture (odds ratio, 0.989; 95% CI, 0.981-0.996; P = 0.005), consistent with dual-energy X-ray absorptiometry-derived BMD at the femoral neck and lumbar spine. Their associations remained even after adjusting for height, body mass index, testosterone, estradiol, sex hormone-binding globulin, and insulin-like growth factor 1. The association of DHEAS with fracture remained after adjusting for falls, grip strength, and physical activity but was attenuated after adjusting for BMD. The MR-Bayesian model averaging analysis showed BMD was the top mediating factor for association of DHEAS with fracture. The association between DHEAS and BMD was observed in men but not in women. Conclusion: DHEAS was associated with increased BMD and decreased fracture. DHEAS may play a protective role in decreasing fracture risk, mainly by increasing bone mass.

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Multidimensional analyses of the effect of exercise on women with depression: A meta-analysis

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Background: The proportion of women is higher than men in depression. This is mainly due to women's physiological regulation is different from men, especially in puberty, menstruation, pregnancy, menopause, among others. Therefore, treating depressive women is still a health challenge. Besides, recent studies of exercise therapy have a more outstanding performance in treating depression, especially in contrast to drug therapy and psychotherapy. Its main advantages are convenience, quickness, no side effects, real-time, and long-term effectiveness. Objective: The aim of

this study was to systematically review the clinical efficacy of exercise on women with depressive symptoms. Methods: Searching PubMed, The Cochrane Library, and Embase databases to collect randomized controlled trials about exercise in the treatment of depressive women. After literature screening, data extraction, and literature quality evaluation, the meta-analysis of acquirement data was performed with RevMan5.3 software. Results: A total of 2294 patients were included in 25 different articles totally. Meta-analysis shows that compared with the control group, exercise could relieve female depression (standard mean difference [95% confidence interval, CI] = -0.64 [-0.89 to -0.39], Z = 4.99, P < .001). Subgroup analysis shows that different types of exercise have significant effects in improving depression symptoms. Exercise therapy has better effect on depressive patients induced by physiology or disease than ordinary depressive patients. Conclusion: Exercise can significantly improve depressive symptoms in women.

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Diabetes risk reduction diet and the risk of breast cancer

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Objective: Diabetes and insulin levels may increase the risk of postmenopausal breast cancer. In the present investigation, we aimed at evaluating whether adherence to a diabetes risk reduction diet (DRRD) lowers the risk of breast cancer. Methods: We used data from an Italian, multicentric case-control study (1991-1994) including 2569 incident histologically-confirmed breast cancer cases and 2588 hospital controls. A food frequency questionnaire collected subjects' usual diet. We derived a DRRD score on the basis of eight items: intake of cereal fiber, total fruit, coffee, polyunsaturated to saturated fats ratio and nuts (higher scores for higher intakes), and dietary glycemic index, red/processed meat and sugar-sweetened beverages/fruit juices (higher scores for lower intakes). The score theoretically ranged 8-37, with higher values indicating greater DRRD adherence. Odds ratios (ORs) of breast cancer according to the DRRD score were estimated using multiple logistic regression models. Results: The DRRD score was inversely related to the risk of breast cancer. The ORs were 0.93 [95% confidence interval (CI), 0.89-0.98] for a three-point score increment and 0.76 (95% CI, 0.64-0.89) for the highest versus the lowest quartile (P for trend 0.001). Inverse associations were observed in subgroups of covariates.

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Does Superior Bone Health Promote a Longer Lifespan?

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Introduction: Public health achievements throughout the last century have resulted in a steady increase in life expectancy. An emergent subset has distinguished themselves, living well beyond the ninth decade by avoiding or delaying the onset of most age-related diseases, including bone diseases and fractures. In this study, we evaluated the bone health of the oldest community-dwelling individuals living in rural Arkansas. Methods: 299 patients aged ≥90 years were retrospectively reviewed for recorded fractures within 12 years prior to the investigation period. Records were also examined for medications and test results pertinent to bone health, including thyroid stimulating hormone, vitamin D levels, hematocrit, hemoglobin, body mass index, and bone densitometric values. Results: 68 patients (23%) had at least one fracture documented, and 15 had >1 fracture. 40% of patients with fractures had osteoporosis and 28% had osteopenia, respectively. 232 patients (78%) had no documented fractures, and of these, only 18% had osteoporosis and 16% had osteopenia. No significant clinical markers were found among the very old to explain the relatively low occurrence of fractures. Conclusions: Patients over 90 years of age had an overall low prevalence of fractures and relative preservation of bone health, suggesting a preserved bone molecular profile in these individuals. Epigenetic factors and activity levels might also have favorably affected bone health. The low percentage of osteoporosis and fractures likely reduced the morbidity and mortality in this population, potentially contributing to their overall longevity.