Selección de Resúmenes de Menopausia

Semana del 9 al 15 de marzo 2022

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Effects of lifestyle on sexual function among postmenopausal women

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Background: A healthy lifestyle has a key role in reducing health problems. Since one of the most common problems in Postmenopausal women has been sexual dysfunction (SD). The specific purpose of the present study was to identify the effects of health-promoting lifestyle (HPL) on sexual function among postmenopausal women. Methods: The present cross-sectional, descriptive, and analytical study was conducted on 405 Postmenopausal women aged 45-60 years, using the convenience sampling method. Data collection was done using three questionnaires of demographic, health-promoting lifestyle profile-II (HPLP-II) and female sexual function index (FSFI). Data were analyzed in the SPSS-16 using Pearson's correlation coefficient. The statistical significance level was regarded as less than 0.05. Results: In general, the result of this study identified a 68% prevalence of SD among participants. The mean score obtained from the HPLP II was 2.27 (SD = 0.42), the highest score of its sub-scales was spiritual growth and the lowest score was physical activity. The mean score of FSFI among the studied women was 23.16 (SD = 0.29), the highest score of six sub-scales was satisfaction and the lowest score was lubrication among participants. A strong correlation was found between the total FSFI scores, and spiritual growth (r=0.048), interpersonal relations (r=0.02), stress management (r=0.000), (p<0.0001). Conclusion: The results of the study revealed that a healthy lifestyle affects sexual function. Given that a healthy lifestyle is one of the most important ways to help women overcome SD, a healthy lifestyle promoting interventions necessary for Postmenopausal women.

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Advances in pathogenesis and therapeutic strategies for osteoporosis

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Osteoporosis, is the most common bone disorder worldwide characterized by low bone mineral density, leaving affected bones vulnerable to fracture. Bone homeostasis depends on the precise balance between bone resorption by osteoclasts and bone matrix formation by mesenchymal lineage osteoblasts, and involves a series of complex and highly regulated steps. Bone homeostasis will be disrupted when the speed of bone resorption is faster than bone formation. Based on various regulatory mechanisms of bone homeostasis, a series of drugs targeting osteoporosis have emerged in clinical practice, including bisphosphonates, selective estrogen receptor modulators, calcitonin, molecular-targeted drugs and so on. However, many drugs have major adverse effects or are unsuitable for long-term use. Therefore, it is very urgent to find more effective therapeutic drugs based on the new pathogenesis of osteoporosis. In this review, we summarize novel mechanisms involved in the pathological process of osteoporosis, including the roles of gut microbiome, autophagy, iron balance and cellular senescence. Based on the above pathological mechanism, we found promising drugs for osteoporosis treatment, such as: probiotics, alpha-ketoglutarate, senolytics and hydrogen sulfide. This new finding may provide an important basis for elucidating the complex pathological mechanisms of osteoporosis and provide promising drugs for clinical osteoporosis treatment.

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The association between different hormone replacement therapy use and the incidence of lung cancer: a systematic review and meta-analysis

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Background: Many peri- and postmenopausal women use hormone replacement therapy (HRT) to relieve menopausal symptoms. However, the side effects of different HRT use (ever/current/former vs. never HRT use) on lung cancer risk in women were not completely consistent. Thus, we conducted this meta-analysis to examine the connection between current, former or ever HRT use and the incidence of lung cancer among women. Methods: We systematically searched the PubMed, Web of Science, EMBASE, Cochrane Library, SCOPUS, China National Knowledge Infrastructure, Wanfang and VIP databases to identify relevant articles published from the inception of the respective databases to

February 18, 2022. Results: A total of 22 studies (13 prospective cohort studies and 9 case-control studies) were included, comprising 911,194 participants and 17,329 patients. Compared to never HRT users, in pooled cohort studies, current HRT users had a statistically decreased risk of lung cancer [RR 0.91, 95% confidence interval (CI): 0.86-0.97, I2=22.9%], and similar results were found among the postmenopausal women with current HRT use (RR 0.91, 95 CI: 0.85-0.98, I2=36%), while in pooled case-control studies, ever HRT users had a decreased risk of incidence of lung cancer [odds ratio (OR) 0.75, 95% CI: 0.69-0.81, I2=0%] as did female non-smokers with ever HRT use (OR 0.76, 95% CI: 0.66-0.87, I2=36.8%). Conclusions: Current or ever HRT use is partly correlated with the decreased incidence of lung cancer in women. Concerns about the incidence of lung cancer can be reduced when perimenopausal and postmenopausal women use current HRT to reduce menopausal symptoms. Meanwhile, given the roles of hormone receptors and relevant genes single nucleotide polymorphism (SNPs) among females, HRT use should be cautiously administered and individualized.

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Metabolic and Epigenetic Regulation by Estrogen in Adipocytes

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Sex hormones contribute to differences between males and females in body fat distribution and associated disease risk. Higher concentrations of estrogens are associated with a more gynoid body shape and with more fat storage on hips and thighs rather than in visceral depots. Estrogen-mediated protection against visceral adiposity is shown in post-menopausal women with lower levels of estrogens and the reduction in central body fat observed after treatment with hormone-replacement therapy. Estrogen exerts its physiological effects via the estrogen receptors (ERα, ERβ and GPR30) in target cells, including adipocytes. Studies in mice indicate that estrogen protects against adipose inflammation and fibrosis also before the onset of obesity. The mechanisms involved in estrogen-dependent body fat distribution are incompletely understood, but involve, e.g., increased mTOR signaling and suppression of autophagy and adipogenesis/lipid storage. Estrogen plays a key role in epigenetic regulation of adipogenic genes by interacting with enzymes that remodel DNA methylation and histone tail post-translational modifications. However, more studies are needed to map the differential epigenetic effects of ER in different adipocyte subtypes, including those in subcutaneous and visceral adipose tissues. We here review recent discoveries of ER-mediated transcriptional and epigenetic regulation in adipocytes, which may explain sexual dimorphisms in body fat distribution and obesity-related disease risk.

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Effects of Walking Speed on Total and Regional Body Fat in Healthy Postmenopausal Women

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Introduction: This study had two aims: (1) To confirm the efficacy of exercise speed and impulse (session duration at a given speed) to produce total and abdominal fat loss in postmenopausal women, and (2) compare the exercise speed and impulse necessary for the stimulation of fat loss to the suppression of bone mineral loss. Of special interest was to compare these parameters of exercise on fat loss in the same study and with the same subjects where they were found to suppress bone mineral loss. We hypothesized that (1) more total fat will be lost with slow walking and a longer impulse than with fast speed and shorter impulse, and (2) more abdominal subcutaneous (SC) and visceral fat (VF) will be lost with fast walking speed. Materials and methods: Fat loss and suppression of bone mineral loss were measured in the same 25 subjects after 15 weeks, and fat measurements were also taken after 30 weeks in 16 residual subjects. Study parameters were walking a 4.8 km distance 4 days/week at either 6.6 km/h (120% of ventilatory threshold (VT)) or at 5.5 km/h (101.6% of VT) and expending 300 kcal/session. Body composition (fat and lean body mass, LBM) was measured with dual-energy X-ray absorptiometry (DXA) and anthropometric methods. Results: Slow walkers in the residual group progressively lost a significant percent of total body fat over 30 weeks while no such loss occurred after 15 weeks in fast walkers in either group, supporting hypothesis 1. However, the 20% higher starting body fat in 16 residual slow relative to fast subjects suggests that exercise fat loss is greater in overweight than in lean subjects. In fast walkers, fat loss occurred after 30 weeks of training. Hypothesis 2 was not supported as both speeds led to equal VF loss in 30-week group as estimated by waist circumference (CF) confirming that VF responds to the magnitude of energy expenditure and not the walking speed. Conclusions: Total body fat is lost through walking at all speeds, but the change is more rapid, clear, and initially greater with slow walking in overweight subjects. A longer exercise impulse at a lower speed in our study initially produced greater total fat loss than a shorter one with fast walking speed.

This was reversed in comparison to how the same exercise in the same subjects suppressed bone mineral loss. Data from other studies indicate that longer impulses may promote greater fat loss at both slow and high exercise speeds, and our study providing only a 4.8 km walking distance may have limited the walking impulse and the magnitude of fat loss. Increased exercise energy expenditure at either walking speed produces equivalent declines in visceral fat in postmenopausal women, and with sufficiently long impulses, should reduce disabilities associated with central obesity.

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Cow's Milk Intake and Risk of Coronary Heart Disease in Korean Postmenopausal Women

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Numerous studies have reported conflicting results associated with cow's milk intake and coronary heart disease (CHD). However, studies involving postmenopausal women are very limited. This study was therefore undertaken to identify the relationship between cow's milk intake and CHD risk in postmenopausal women, using data from the 6th period of the Korea National Health and Nutrition Examination Survey (2013-2015). A total of 1825 postmenopausal women, aged 50-64 years old, were included in the final analysis. The frequency of cow's milk consumption for each subject was determined using the semi-quantitative food frequency questionnaire, and was classified into four groups (Q1-Q4): Q1, group that did not drink milk (no milk, n = 666); Q2, 0 < frequency of milk intake per week ≤ 1 (n = 453); Q3, 1 < frequency of milk intake per week ≤ 3 (n = 319); and Q4, frequency of milk intake >3 times per week (n = 387). General characteristics, such as education, living area, household income, and obesity level, were compared between the four groups. Percentages of daily nutrient intake compared to the dietary reference intake for Koreans (KDRIs) were determined, and the Framingham Risk Score (FRS), atherogenic index (AI), and atherogenic index of plasma (AIP) were determined as the CHD risk indicators. Except household income, no significant difference was obtained among the four groups with respect to age, education, living area, or obesity. Compared to KDRIs, the intake ratio of calcium, phosphorus, and riboflavin were significantly higher in the Q4 group than in the Q1-Q3 groups. Blood HDL-cholesterol was significantly higher in Q4 than in Q1. The CHD risk factors FRS (%), AI, and AIP were significantly lower in the Q4 group as compared to the other groups (CHD risk (%): Q1 9.4, Q4 8.5; AI: Q1 3.06, Q4 2.83; API: Q1 0.37, Q2 0.31, Q4 0.32). FRS was determined to be significantly and positively correlated to AI or AIP, and negatively correlated with the cow's milk intake frequency and calcium intake. In conclusion, compared to women who do not consume cow's milk, postmenopausal women who consume cow's milk frequently have a better nutritional status of calcium, phosphorus, and vitamin B12, higher HDL levels, and a lower level of CHD risk indicators, such as FRS, AI, and AIP, contributing to decreased CHD risk in a 10-year period. Therefore, to prevent the risk of CHD in postmenopausal women, there needs to be a greater emphasis for cow's milk consumption four or more times per week.

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Menopause-associated risk of cardiovascular disease

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Cardiovascular disease (CVD) is of major concern in women entering menopause. The changing hormonal milieu predisposes them to increased CVD risk, due to a constellation of risk factors, such as visceral obesity, atherogenic dyslipidemia, dysregulation in glucose homeostasis, non-alcoholic fatty liver disease and arterial hypertension. However, an independent association of menopause per se with increased risk of CVD events has only been proven for early menopause (<45 years). Menopausal hormone therapy (MHT) ameliorates most of the CVD risk factors mentioned above. Transdermal estrogens are the preferable regimen, since they do not increase triglyceride concentrations and they are not associated with increased risk of venous thromboembolic events (VTE). Although administration of MHT should be considered on an individual basis, MHT may reduce CVD morbidity and mortality, if commenced during the early postmenopausal period (<60 years or within ten years since the last menstrual period). In women with premature ovarian insufficiency (POI), MHT should be administered at least until the average age of menopause (50-52 years). MHT is contraindicated in women with a history of VTE and is not currently recommended for the sole purpose of CVD prevention. The risk of breast cancer associated with MHT is generally low and is mainly conferred by the progestogen. Micronized progesterone and didrogesterone are associated with lower risk compared to other progestogens.