Selección de Resúmenes de Menopausia

Semana del 23 al 29 de noviembre, 2022

María Soledad Vallejo. Clínica Quilín. Universidad de Chile

Nutrients. 2022 Nov 21;14(22):4926. doi: 10.3390/nu14224926. -22

Body Weight, Central Adiposity, and Fasting Hyperglycemia Are Associated with Tumor Characteristics in a Brazilian Cohort of Women with Breast Cancer

Clara Gioseffi 1, Patricia de Carvalho Padilha, Gabriela Villaça Chaves, Livia Costa de Oliveira, et al.

The aim of this study was to evaluate the association of overweight, obesity, excess central adiposity, hyperglycemia, and diabetes mellitus with tumor characteristics in breast cancer. In this retrospective cohort study that enrolled 2127 women with breast cancer, the independent variables collected were fasting blood glucose, body mass index, central adiposity (waist circumference and waist-to-hip circumference ratio (WHR)), and waist-to-height ratio. The tumor characteristics (infiltrating, ductal grade, hormone receptor-positive (HR+), human epidermal growth factor receptor, triple negative, size, lymph node involvement, and clinical stage) were the dependent variables. Most of the women were postmenopausal (73.5%), with an infiltrating tumor (83.0%), HR+ (82.0%), and overweight or obese (71.0%). For the premenopausal women, obesity was associated with grade 3 ductal tumor (odds ratio (OR): 1.70; 95% confidence interval (95% CI): 1.09-2.66), triple negative (OR: 1.37, 95% CI: 1.08-3.24), and size ≥ 2 cm (OR: 2.20, 95% CI: 1.36-3.56). For the postmenopausal women, obesity was associated with WHR, infiltrating tumor (OR: 1.73, 95% CI: 1.56-1.95), size ≥ 2 cm (OR: 1.38, 95% CI: 1.11-1.71), lymph node involvement (OR: 1.24, 95% CI: 1.02-1.56), and stages III-IV (OR: 1.76, 95% CI: 1.30-2.65). Excess body weight and central adiposity were associated with tumor aggressiveness characteristics in women with breast cancer, confirming the importance of nutritional status.

Nutrients. 2022 Nov 14;14(22):4823. doi: 10.3390/nu14224823.

Effects on Serum Inflammatory Cytokines of Cholecalciferol Supplementation in Healthy Subjects with Vitamin D Deficiency

Angelo Fassio 1, Davide Gatti 1, Maurizio Rossini 1, Davide Bertelle 1, Riccardo Bixio 1, Ombretta Viapiana et al.

The effects of different cholecalciferol supplementation regimens on serum inflammatory cytokines in healthy subjects with vitamin D deficiency are still lacking. This is a single-center, open-label, randomized, parallel group study involving healthy subjects deficient in vitamin D (baseline 25OHD < 20 ng/mL) receiving oral cholecalciferol with three different dosing regimens: Group A: 10,000 IU/day for 8 weeks followed by 1000 IU/day for 4 weeks; Group B: 50,000 IU/week for 12 weeks and Group C: 100,000 IU every other week for 12 weeks. IL-17A, IL-6, IL-8, IL-10, IL-23 and TNFα were measured at baseline and at week 4, 8, 12, and 16. 75 healthy subjects were enrolled (58.7% female), with an average age of 34.1 ± 10.2 years. No statistical differences were observed among groups at baseline for either IL-6, IL-17A, IL-23, IL-8 or IL-10 at any time point; TNFα was indetectable. Concerning the whole sample, the time trend analysis showed a statistically significant linear trend for decreasing values over the treatment period for IL-6 ($p = 0.016$) and IL-17A ($p = 0.006$), while no significant time trends were observed for the other teste cytokines. No significant differences were found in the serum concentrations of the tested cytokines between week 12 and week 16. In young healthy individuals deficient in vitamin D, cholecalciferol administration showed a decrease in the serum IL-6 and IL-17A concentrations, without marked differences using the three regimens.

J Clin Med. 2022 Nov 8;11(22):6614. doi: 10.3390/jcm11226614.

The Reciprocal Relationship between Osteoporosis and Renal Stones

So Young Kim 1, Juyong Chung 2, Doo Sik Park 3, Dae Myoung Yoo 4, Woo Jin Bang 5, Hyo Geun Choi 2 4

Previous studies have proposed an association between osteoporosis and renal stones. The current analyses intended to investigate the bidirectional relationship between osteoporosis and renal stones. The ≥40-year-old population in the National Health Insurance Service-Health Screening cohort (2002-2015) was analyzed. In study I, 67,811 patients with osteoporosis and 67,811 control I participants were matched. The hazard ratio (HR) of osteoporosis for renal stones was calculated using stratified Cox proportional hazard models. In study II, 25,261 patients with renal stones and 101,044 control II participants were matched. The HR of renal stones for osteoporosis was estimated using stratified Cox proportional hazard models. In study I, 3.4% (2276/67,811) of osteoporosis patients and 2.5% (1696/67,811) of

control I participants had renal stones. Osteoporosis patients had a 1.36 times higher HR for renal stones than control I participants (95% confidence intervals [CI] = 1.28-1.45). In study II, 9.2% (2319/25,261) of renal stone patients and 7.6% (7658/101,044) of control II participants had osteoporosis. Renal stone patients had a 1.26 times higher HR for osteoporosis than control II participants (95% CI = 1.21-1.32). Adults with osteoporosis had a higher risk of renal stones. Moreover, adults with renal stones had a higher risk of osteoporosis.

J Immunol. 2022 Nov 11;ji2200475. doi: 10.4049/jimmunol.2200475. Online ahead of print.

Follicle-Stimulating Hormone Provokes Macrophages to Secrete IL-1β Contributing to Atherosclerosis Progression

Jing-Li Han 1, Yu-Xuan Song 1, Wei-Juan Yao 2 3, Jing Zhou 2 3, Yiqing Du 1, Tao Xu 1

Abnormally high follicle-stimulating hormone (FSH) has been reported to associate with cardiovascular diseases in prostate cancer patients with specific androgen deprivation therapy and in menopausal women. All of the cardiovascular diseases were involved in atherosclerosis. However, the pathogenic mechanism of FSH-associated atherosclerosis remains uncertain. Apolipoprotein E-deficient mice were chosen to develop atherosclerosis, of which the plaques were analyzed with administration of short- and long-term FSH imitating androgen deprivation therapy-induced and menopausal FSH elevation. The study showed that short- and long-term exposure of FSH significantly accelerated atherosclerosis progression in apolipoprotein E-deficient mice, manifested as strikingly increased plaques in the aorta and its roots, increased macrophage content, reduced fibrin, and an enlarged necrotic core, suggesting a decrease in plaque stability. Furthermore, expression profiles from the Gene Expression Omnibus GSE21545 dataset revealed that macrophage inflammation was tightly associated with FSH-induced atherosclerotic progression. The human monocyte cell line THP-1 was induced by PMA and worked as a macrophage model to detect inflammatory factors and cellular functions. FSH remarkably promoted the expression of IL-1β in macrophages and strikingly increased the chemotactic migratory capacity of macrophages toward MCP-1, but the promigratory capacity of FSH was attenuated in foam cells. Overall, we revealed that FSH significantly promoted the inflammatory response and migration of macrophages, thereby provoking atherosclerosis development.

Brain. 2022 Nov 23;awac440. doi: 10.1093/brain/awac440. Online ahead of print.

Reproductive characteristics, use of exogenous hormones and Parkinson disease in women from the E3N study

Giancarlo Pesce 1, Fanny Artaud 1, Emmanuel Roze 2, Isabelle Degaey, Berta Portugal, Thi Thu Ha Nguyen, et al.

Despite experimental studies suggesting a disease-modifying role of oestrogens, results from epidemiological studies on the relation of reproductive characteristics and hormonal exposures with Parkinson disease in women are conflicting. We used the data from the E3N cohort study including 98,068 women aged 40-65y in 1990 followed until 2018. Parkinson disease was ascertained using a validation process based on drug claim databases and medical records. Reproductive characteristics and hormonal exposures were self-reported (11 questionnaires). Associations of exposures with Parkinson disease incidence were investigated using time-varying Cox proportional hazards regression with a 5-year exposure lag and age as the time scale adjusted for confounders. We identified 1165 incident Parkinson disease cases during a mean follow-up of 22.0 years (incidence rate = 54.7 per 100 000 person-years). Parkinson disease incidence was higher in women with early (<12y, hazard ratio [HR] = 1.21, 95% confidence interval [CI] = 1.04-1.40) or late age at menarche (≥14y, HR = 1.18, 95% CI = 1.03-1.35) than in women with menarche at 12-13y. Nulliparity was not associated with Parkinson disease, but Parkinson disease incidence increased with the number of children in parous women (P-trend = 0.009). Women with artificial (surgical, iatrogenic) menopause were at greater risk than women with natural menopause (HR = 1.28, 95% CI = 1.09-1.47), especially when artificial menopause occurred at an early age (≤45.0 years). Postmenopausal hormone therapy tended to mitigate greater risk associated with artificial or early menopause (≤45.0 years). While fertility treatments were not associated with Parkinson disease overall, ever users of clomiphene were at greater Parkinson disease risk than never users (HR = 1.81, 95% CI = 1.14-2.88). Other exposures (breastfeeding, oral contraceptives) were not associated with Parkinson disease. Our findings suggest that early and late age at menarche, higher parity, and artificial menopause, in particular at an early age, are associated with increased Parkinson disease incidence in women. In addition, there was some evidence that use of exogenous hormones may increase (fertility treatments) or decrease (postmenopausal hormone therapy) Parkinson disease incidence. These findings support the hypothesis that hormonal exposures play a role in the susceptibility to neurodegenerative diseases. If confirmed, they could help to identify subgroups at high risk for Parkinson disease.

Am J Obstet Gynecol. 2022 Nov 17;S0002-9378(22)02177-9. doi: 10.1016/j.ajog.2022.11.1289.

Sexual functioning more than 15 years after premenopausal risk-reducing salpingo-oophorectomy

Lara Terra 1, Maarten J Beekman 1, Ellen G Engelhardt 1, Bernadette A M Heemskerk-Gerritsen 2, Marc Van Beurden 3, Jeanine E Roeters Van Lennep 4, Helena C Van Doorn 5, Joanne A De Hullu 6, Eleonora B L et al.

Background: Women with a BRCA1/2 pathogenic variant are advised to undergo premenopausal risk-reducing salpingo-oophorectomy after completion of childbearing, to reduce their risk of ovarian cancer. Several studies reported less sexual pleasure one to three years after a premenopausal oophorectomy. However, the long-term effects of a premenopausal oophorectomy on sexual functioning are unknown. Objective: Our aim was to study long-term sexual functioning in women at increased familial risk of breast/ovarian cancer who underwent a risk-reducing salpingo-oophorectomy either before the age of 46 years (premenopausal group), or after the age of 54 years (postmenopausal group). We performed subgroup analyses in the premenopausal group, comparing early (before the age of 41 years) and later (at ages 41-45 years) premenopausal risk-reducing salpingo-oophorectomy. Study design: Between 2018 and 2021, we invited 817 women with a high familial risk of breast/ovarian cancer from an ongoing cohort study to participate in our study. Due to a large difference in age at study between the premenopausal and postmenopausal salpingo-oophorectomy groups, we restricted the comparison of sexual functioning between the groups to 368 women who were 60-70 years old at completion of the questionnaire (premenopausal group, n=226, postmenopausal group, n=142). In 496 women with a premenopausal risk-reducing salpingo-oophorectomy we compared sexual functioning between women in the early premenopausal group (n=151) and the later premenopausal group (n=345). Differences between groups were analyzed using multiple regression analyses adjusting for current age, breast cancer history, use of hormone replacement therapy, body mass index, chronic medication use (yes/no) and body image. Results: Mean time since risk-reducing salpingo-oophorectomy was 20.6 years in the premenopausal group and 10.6 years in the postmenopausal group (p-value <.001). In the premenopausal group, mean age at questionnaire completion was 62.7 years, versus 67.0 years in the postmenopausal group (p<.001). In the premenopausal group, 47.4% was still sexually active, compared to 48.9% of the postmenopausal group (p-value: .80). Current sexual pleasure scores were the same for women in the premenopausal group and the postmenopausal group (mean pleasure score 8.6, p-value .99). However, women in the premenopausal group more often reported substantial discomfort than women in the postmenopausal group (35.6% compared with 20.9%, p-value .04). After adjusting for confounders, premenopausal risk-reducing salpingo-oophorectomy was associated with substantially more discomfort during sexual intercourse, compared to postmenopausal risk-reducing salpingo-oophorectomy (odds ratio 3.1, 95% confidence interval 1.04; 9.4). Moreover, following premenopausal risk-reducing salpingo-oophorectomy, more severe complaints of vaginal dryness were observed (odds ratio 2.6, 95% confidence interval 1.4; 4.7). Women with a risk-reducing salpingo-oophorectomy before age 41 reported similar pleasure and discomfort scores as women with a risk-reducing salpingo-oophorectomy between ages 41 and 45. Conclusion: More than 15 years after premenopausal risk-reducing salpingo-oophorectomy, the proportion of sexually active women was comparable to that among women with a postmenopausal risk-reducing salpingo-oophorectomy. However, after a premenopausal risk-reducing salpingo-oophorectomy, women experienced more vaginal dryness and more often had substantial sexual discomfort during sexual intercourse. This did not lead to less pleasure with sexual activity.