

Selección de Resúmenes de Menopausia

Semana del 1 a 7 de marzo, 2023

María Soledad Vallejo. Clínica Quilín. Universidad de Chile

Eur J Nutr. 2023 Mar 4. doi: 10.1007/s00394-023-03108-w. Online ahead of print.

Dietary Inflammatory Index and risk of breast cancer: evidence from a prospective cohort of 67,879 women followed for 20 years in France

Mariem Hajji-Louati, Amandine Gelot, Pauline Frenoy, Nasser Laouali, Pascal Guénel, Francesca Romana Mancini. Background: Inflammation is implicated in breast cancer development, and diet is one of the modifiable risk factors involved in the regulation of chronic inflammation. Previous studies on the association between breast cancer risk and Dietary Inflammatory Indexes (DII) derived from food frequency questionnaires and data on inflammatory potential of dietary components have reported inconsistent results. Objective: To investigate the association between the DII and the risk of breast cancer using data from a large population-based cohort study. Design: A total of 67,879 women from the E3N cohort were followed from 1993 to 2014. A total of 5686 breast cancer cases were diagnosed during the follow-up. The food frequency questionnaire administered at baseline in 1993 was used to calculate an adapted DII. Cox proportional hazard models using age as the time scale were used to estimate hazard ratios (HR) and 95% confidence intervals (CI). Spline regression was used to determine any dose-response relationship. We also evaluated effect modification by menopausal status, body mass index, smoking status and alcohol consumption. Results: The median DII score of the study population was slightly pro-inflammatory (DII = + 0.39); ranged from - 4.68 in the lowest quintile to + 4.29 in the highest quintile. The HR increased linearly with the DII (HR per 1SD = 1.04 [95% CI: 1.01, 1.07]), and reached 1.13 [95% CI: 1.04, 1.23] in the 5th quintile group as compared to the first. A positive linear dose-response relationship was also observed when modeling DII with spline functions. Slightly higher HRs were observed in non-smokers (HR for 1-SD increase 1.06 [95% CI: 1.02, 1.10]; p trend = 0.001) and in low-alcohol consumers (≤ 1 glass/day) (HR for 1-SD increase 1.05 [95% CI: 1.01, 1.08]; p trend = 0.002). Conclusion: Our results suggest a positive association between DII and breast cancer risk. Consequently, the promotion of anti-inflammatory diet may contribute to breast cancer prevention.

Case Rep Womens Health. 2023 Feb 13;37:e00486. doi: 10.1016/j.crwh.2023.e00486. eCollection 2023 Mar.

Effects of menstruation on the onset of acute coronary syndrome in premenopausal women: A case series

Marte F van der Bijl 1, Madoka Sunamura 1, Nienke Ter Hoeve 1, Michelle M Schreuder 2, Mattie J Lenzen, et al. Background: The incidence of cardiovascular disease (CVD) among women is lower before the menopause, which may be due to the atheroprotective effects of female sex hormones, including estrogens. This study explored whether women experienced acute coronary syndrome (ACS) more often during menstruation, when the levels of female sex hormones are low. Methods: All premenopausal women referred to the local cardiac rehabilitation program after ACS between August 2010 and September 2018 were contacted by telephone to gather information about their menstrual cycle, contraceptive use and whether ACS occurred during menstruation. Information on cardiovascular risk factors was collected using the clinical electronic health record. Results: Of the 22 women fulfilling the inclusion criteria and having a regular menstrual cycle, 22.7% reported that they were diagnosed with ACS at the time of menstruation. Conclusions: The percentage of women who were menstruating whilst having their cardiovascular event is higher than the percentage expected if the event was unrelated to the menstrual cycle. To gain more insight into the effect of female sex hormones on ACS, it is suggested that information on the menstrual cycle is routinely collected from women admitted to hospital with the condition.

Cleve Clin J Med. 2023 Mar 1;90(3):173-180. doi: 10.3949/ccjm.90a.22071. FREE

To repeat or not to repeat? Measuring bone mineral density during anti-resorptive therapy or a drug holiday

Tayyab S Khan 1, Partha Sinha 2, Harold Rosen 3

An initial bone mineral density (BMD) measurement is used to diagnose osteoporosis and decide whether patients need treatment, but the utility of repeating this test in those on treatment or on a drug holiday (ie, during a pause in bisphosphonate treatment) is controversial. Here, we present evidence for and against the use of BMD monitoring in patients receiving antiresorptive therapy or on a drug holiday, and give our recommendations, arguing against a one-size-fits-all approach.

Menopause. 2023 Feb 28. doi: 10.1097/GME.0000000000002165. Online ahead of print.

The association between hormone therapy and the risk of lung cancer in postmenopausal women: a 16-year nationwide population-based study

Chia-Chen Wu 1, Chi-Hsiang Chung, Nian-Sheng Tzeng, Min-Jung Wu 2, Chang-Huei Tsao, Ti-Hui Wu, et al.

Objective: Although an association between hormone therapy (HT) and the risk of developing lung cancer has been reported, the results on the topic are inconsistent. Our study objective was to investigate whether postmenopausal women who undergo HT exhibit a risk of developing lung cancer. Methods: In this matched cohort study, we obtained the data of 38,104 postmenopausal women older than 45 years who were treated using HT between 2000 and 2015 from Taiwan's National Health Insurance Research Database, and 152,416 matched participants who were not treated using HT were enrolled as controls at a 1:4 ratio. Results: We used a Cox proportional hazards regression model to identify the risk of developing lung cancer during 16 years of follow-up, and the results indicate no significant difference in the proportion of postmenopausal women treated using HT ($P = 0.129$) who developed lung cancer and that of those not treated using HT (0.866% [330 of 38,104] vs 0.950% [1,449 of 152,416]). After adjustment for age and other variables, the adjusted hazard ratio was 0.886 (95% CI, 0.666-1.305, $P = 0.433$), indicating no association between HT and lung cancer development in postmenopausal women. In a subgroup analysis, the risk of lung cancer was significantly lower in the women who were treated using HT when the HT cumulative dosage was ≥ 401 mg or when the therapy duration was ≥ 5 years compared with in those not treated using HT; the adjusted hazard ratios were 0.633 (95% CI, 0.475-0.930; $P < 0.001$) and 0.532 (95% CI, 0.330-0.934; $P < 0.001$), respectively, after adjustment. Conclusions: Our results indicate that HT is not associated with the risk of lung cancer development in postmenopausal women; furthermore, a higher cumulative dosage and the long-term effects of HT reduce the risk of developing lung cancer.

Curr Drug Saf. 2023 Feb 28. doi: 10.2174/1574886318666230228085220. Online ahead of print.

To evaluate the association between serum concentration of vitamin D and chronic periodontitis in non-menopausal females: A clinico biochemical study

Jasleen Kaur 1, Supreet Kaur 2, Vandana 1, Raman Deep Singh Narang 3, Sahib Tej Singh 2, Danish Khindri 1

Introduction: Periodontal disease's initiation and propagation is through a dysbiosis of the commensal oral microbiota. But recently, through the extraordinary progress, the inter-relationship that exists between periodontal disease and systemic health has been unveiled. Through various studies, it has been revealed that vitamin D deficiency may be associated with a greater risk of developing chronic periodontitis and vitamin D supplementation may help to preserve periodontal health. Aim: • To find a co-relation between 25-hydroxy vitamin D status and the severity of periodontal diseases. • To evaluate and compare the effect of non-surgical periodontal therapy alone and in combination with vitamin D supplementation in reducing the severity of periodontal diseases. Materials and method: The present study was conducted on 90 non-menopausal female subjects divided into 3 groups. Group I comprised of healthy controls. Group II comprised of patients with moderate chronic periodontitis who were assigned to receive only Scaling and root planing (SRP). While group III included patients with moderate chronic periodontitis who were assigned to receive SRP along with Vitamin D supplementation. The periodontal parameters and serum levels of 25-hydroxy vitamin D were recorded for all the participants at baseline. Group II and group III participants were reassessed at an interval of 3 months post-treatment. Results: The results indicated that vitamin D deficiency affected periodontal health negatively. Statistically highly significant improvement was observed in Group III as compared to group II, signifying the efficacy of vitamin D supplementation adjunctive to SRP. Conclusion: Regular evaluation of Vitamin D levels and supplementation to treat the deficiency may have potential periodontal health benefits.

Endocr Connect. 2023 Feb 1;EC-22-0501. doi: 10.1530/EC-22-0501. Online ahead of print.

25-hydroxyvitamin D level is associated with greater grip strength across adult lifespan - a population-based cohort study

Fabienne A U Fox 1, Lennart Koch 2, Monique M B Breteler 3, N Ahmad Aziz 4

Objective Maintaining muscle function throughout life is critical for healthy ageing. Although in-vitro studies consistently indicate beneficial effects of 25-hydroxyvitamin D (25-OHD) on muscle function, findings from population-based studies remain inconclusive. We therefore aimed to examine the association between 25-OHD concentration and handgrip strength across a wide age range, and assess potential modifying effects of age, sex and season. **Methods** We analysed cross-sectional baseline data of 2,576 eligible participants out of the first 3,000 participants (recruited from March 2016 to March 2019) of the Rhineland Study, a community-based cohort study in Bonn, Germany. Multivariate linear regression models were used to assess the relation between 25-OHD levels and grip strength, while adjusting for age, sex, education, smoking, season, body mass index, physical activity levels, osteoporosis and vitamin D supplementation. **Results** Compared to participants with deficient 25-OHD levels (<30 nmol/L), grip strength was higher in those with inadequate (30 to <50 nmol/L) and adequate (≥ 50 to ≤ 125 nmol/L) levels ($\beta_{\text{inadequate}}=1.222$ [95%CI: 0.377; 2.067], $p=0.005$; $\beta_{\text{adequate}}=1.228$ [95%CI: 0.437; 2.019], $p=0.002$). Modeling on a continuous scale revealed grip strength to increase with higher 25-OHD levels up to ~ 100 nmol/L, after which the direction reversed ($\beta_{\text{linear}}=0.505$, [95%CI: 0.179; 0.830], $p=0.002$; $\beta_{\text{quadratic}}=-0.153$ [95%CI: -0.269; -0.038], $p=0.009$). Older adults showed weaker effects of 25-OHD levels on grip strength than younger adults ($\beta_{25\text{OHD}\times\text{Age}}=-0.309$, [95%CI: -0.594; -0.024], $p=0.033$). **Conclusions** Our findings highlight the importance of sufficient 25-OHD levels for optimal muscle function across the adult lifespan. However, vitamin D supplementation should be closely monitored to avoid detrimental effects.

J Endocrinol Invest. 2023 Feb 27. doi: 10.1007/s40618-023-02045-z. Online ahead of print.

Bone mineral density, vertebral fractures and trabecular bone score in primary ovarian insufficiency

M Dhakate 1, D Goswami 2, R Goswami 3, S Saha 3, D Kandasamy 4, M Arora 5

Purpose Bone health in primary ovarian insufficiency (POI) is under-investigated. We assessed patients with spontaneous POI for vertebral fractures (VFs) and related parameters of bone health. **Methods:** 70 cases with spontaneous POI (age 32.5 ± 7.0 years) and an equal number of controls were assessed for BMD, TBS, and VFs. BMD at the lumbar-spine (L1-L4), left hip, non-dominant forearm, and TBS (iNsight software) were measured on a dual-energy X-ray absorptiometry (DXA) machine. VFs were assessed by Genant's classification. Serum FSH, LH, estradiol, T4, TSH, iPTH, serum 25(OH)D, total calcium, and inorganic phosphorus were measured. **Results:** BMD at the lumbar-spine, hip and forearm was reduced by 11.5%, 11.4% and 9.1% in POI as compared to controls ($P < 0.001$). Degraded or partially degraded microarchitecture on TBS was observed in 66.7% of patients and 38.2% of controls ($P = 0.001$). 15.7% of the POI patients had VFs, compared to 4.3% of controls ($P = 0.045$). Age, duration of amenorrhea and duration of HRT use were the significant predictors of TBS ($P < 0.01$). Serum 25(OH)D was the significant determinant of VFs. TBS abnormalities were higher in patients with POI and VFs. BMD was not significantly different in patients with and without VFs. **Conclusion:** Thus, lumbar-spine osteoporosis, impaired TBS and VFs were present in 35.7%, 66.7% and 15.7% of patients with spontaneous POI in their early third decade. This indicates need for rigorous investigations for impaired bone health in these young patients and management with HRT, vitamin-D, and possible need for bisphosphonate therapy.