Selección de Resúmenes de Menopausia

Semana de 20 a 26 de noviembre , 2024

María Soledad Vallejo. Obstetricia Ginecología. Hospital Clínico. Universidad de Chile

Alcohol Clin Exp Res (Hoboken). 2024 Nov 24. doi: 10.1111/acer.15493. Online ahead of print.

Alcoholic beverage consumption and female breast cancer risk: A systematic review and meta-analysis of prospective cohort studies

Ivneet Sohi 1, Jürgen Rehm 1 2 3 4 5 6, Marian Saab 1 2, Lavanya Virmani 1 2, Ari Franklin 1, et al

Alcohol consumption is an established cause of female breast cancer. This systematic review examines in detail the association between alcohol and female breast cancer overall and among the described subgroups, using all of the evidence to date. A systematic review of PubMed and Embase was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The search included articles published up to November 15, 2023. Meta-analyses and regressions were performed for alcohol consumption of less than 1 standard drink (10 g of ethanol) per day and for a range of alcohol consumption categories in relation to breast cancer. Analyses by menopausal status, hormone receptor status, human epidermal growth factor receptor 2 status, and molecu.lar subtype were performed. The search yielded 5645 publications, of which 23 publications of individual and pooled studies examined the association between overall alcohol consumption and breast cancer incidence. The meta-regression showed a positive association; relative risks (RR) of breast cancer were 1.05 (95% CI: 1.04, 1.06), 1.10 (95% CI: 1.08, 1.12), 1.18 (95% CI: 1.15, 1.21), and 1.22 (95% CI: 1.19, 1.25) for 0.5, 1, 2, and 3 standard drinks per day compared with nondrinking, respectively. A meta-analysis of nine studies indicated that for consumption of less than one standard drink per day, the RR estimate of breast cancer was 1.04 (95% CI: 1.01, 1.07) compared with nondrinking. Consumption of an additional 1 standard drink per day was associated with a higher risk of premenopausal (RR: 1.03 (95% CI: 1.01, 1.06)) and postmenopausal (RR: 1.10 (95% CI: 1.08, 1.12)) breast cancer. Alcohol consumption increases female breast cancer risk, even for women who consume one drink per day. Furthermore, alcohol consumption is associated with both pre- and postmenopausal breast cancer risk. These findings support evidence-based cancer prevention guidelines to reduce alcohol-related risks.

Environ Health Prev Med. 2024:29:65. doi: 10.1265/ehpm.24-00209.

Mammographic density and exposure to air pollutants in premenopausal women: a cross-sectional study

Tamara Jiménez 1 2, Alejandro Domínguez-Castillo 3 4, Nerea Fernández de Larrea-Baz 3 4, Pilar Lucas 3 4, et al.

Background: Mammographic density (MD) is a well-established risk factor for breast cancer. Air pollution is a major public health concern and a recognized carcinogen. We aim to investigate the association between MD and exposure to specific air pollutants (SO2, CO, NO, NO2, NOx, PM2.5, PM10, and O3) in premenopausal females. Methods: This cross-sectional study, carried out in Spain, included 769 participants who attended their gynecological examinations. Hourly concentrations of the pollutants were extracted from the Air Quality Monitoring System of Madrid City over a 3-year period. Individual long-term exposure to pollutants was assessed by geocoding residential addresses and monitoring stations, and applying ordinary kriging to the 3-year annual mean concentrations of each pollutant to interpolate the surface of Madrid. This exposure variable was categorized into quartiles. In a first analysis, we used multiple linear regression models with the log-transformed percent MD as a continuous variable. In a second analysis, we used MD as a dichotomous variable ("high" density (MD > 50%) vs. "low" density (MD ≤ 50%)) and applied multiple logistic regression models to estimate odds ratios (ORs). We also analyzed the correlation among the pollutants, and performed a principal component analysis (PCA) to reduce the dimensionality of this set of eight correlated pollutants into a smaller set of uncorrelated variables (principal components (PCs)). Finally, the initial analyses were applied to the PCs to detect underlying patterns of emission sources. Results: The first analysis detected no association between MD and exposure to any of the pollutants. The second analysis showed non-statistically significant increased risks (ORQ4; IC95%) of high MD were detected in women with higher exposure to SO2 (1.50; 0.90-2.48), and PM2.5 (1.27; 0.77-2.10). In contrast, non-significant ORs < 1 were found in all exposure quartiles for NO (ORQ2 = 0.72, ORQ3 = 0.68, ORQ4 = 0.78), and PM10 (ORQ2 = 0.69, ORQ3 = 0.82, ORQ4 = 0.72). PCA identified two PCs (PC1: "traffic pollution" and PC2: "natural pollution"), and no association was detected between MD and proximity to these two PCs.

Conclusions: In general, our results show a lack of association between residential exposure to specific air pollutants and MD in premenopausal females. Future research is needed to confirm or refute these findings.

Menopause. 2024 Dec 1;31(12):1055-1061. doi: 10.1097/GME.0000000000002440.

Association of the number of pregnancies and births with cognitive performance in older postmenopausal women: a cross-sectional study

Yue Zhao 1, Kaixin Li 2, Junge Peng 1, Jiang Xiao 2, Mengying Zhang 2, Hongfei Mo 2, Guirong Wang 3, Yan Li

Objective: Cognitive impairment in the elderly is a serious public health problem. However, the effect of the number of pregnancies and births in the early years of life on cognitive function in postmenopausal women remains controversial. This study aims to investigate the relationship between these two factors. Methods: We used the National Health and Nutrition Examination Survey 2011-2014 data on women aged ≥60 years. This study included sociodemographic data, history of estrogen use, and contraceptive use as confounding variables. The combined scores of the Consortium to Establish a Registry for Alzheimer's Disease Word Learning (CERAD-WL), delayed word recall (CERAD-DR), the Animal Fluency test (AF), and the Digit Symbol Substitution Test (DSST) were used to assess the cognitive performance of participants. Hierarchical multiple regression analysis explored the relationship between the number of pregnancies and births and cognitive function. Results: The study screened 1,259 postmenopausal women and found that 24.3% had low cognitive performance. The study found a significant increase in low cognitive performance among older adults, Mexican Americans, those with a lower education level and poverty-income ratio, those who were widowed, and those with diabetes and hypertension ($P < 0.001$). In the multiple regression analysis, the number of pregnancies remained a significant determinant of cognitive performance ($B = -0.188$, $P < 0.001$). Conclusions: The number of pregnancies was associated with cognitive performance in a population of postmenopausal women in the United States. A lower number of pregnancies is associated with better cognitive performance.

Menopause. 2024 Dec 1;31(12):1035-1043. doi: 10.1097/GME.0000000000002447.

Trajectories of depressive symptoms in a population-based cohort of Black and White women from late reproductive age through the menopause transition: a 30-year analysis

Diana A Chirinos 1, Zhe Yin 2, Pamela J Schreiner 3, Duke Appiah 4, Melissa F Wellons 5, Cora E Lewis 6, et al.

Objective: The aim of this study was to examine how depressive symptoms change in midlife and across the menopause transition. Methods: We conducted a secondary analysis of data from a prospective population-based cohort, the Coronary Artery Risk Development in Young Adults study. We included women (n = 2,160) with ≥3 responses to the Center for Epidemiologic Studies Depression Scale (CES-D) beginning at examination year 5, at approximately 30 years of age, and again at years 10, 15, 20, 25, 30, and 35 (ages 35 through 60 years). We modeled trajectories of CES-D by chronologic age and compared these to trajectories of depressive symptoms by relation to age at menopause. Results: We identified three trajectories of depressive symptoms: women with minimal (n = 1,328, 61%, mean CES-D 8.1); intermediate (n = 675, 31%, mean CES-D 15.6); or persistent depressive symptoms (n = 157, 7%, mean CES-D 26.1). Trajectories were stable over time, among women who had undergone natural menopause (n = 1,153), Black race (odds ratio [OR], 1.85; 95% confidence interval [CI], 1.43 to 2.40), less than a high school education (OR, 1.83; 95% CI, 1.38 to 2.41), and low income (OR, 1.60; 95% CI, 1.18 to 2.18), along with tobacco use (OR, 1.35; 95% CI, 1.04 to 1.77), alcohol consumption (OR, 1.01; 95% CI, 1.004 to 1.02), estrogen use for vasomotor symptoms (OR, 1.71; 95% CI, 1.06 to 2.77), and higher body mass index (OR, 1.03; 95% CI, 1.01 to 1.05) that were also associated with persistent depressive symptoms. Hormonal contraceptive use at year 2 was associated with lower odds of persistent depressive symptoms (OR, 0.69; 95% CI, 0.51 to 0.93). Similar patterns were observed among women who underwent surgical menopause. Conclusions: Depressive symptoms in the premenopause were similar to those in postmenopause, and risk factors could be identified early in reproductive life. Studies with more frequent assessments of depressive symptoms during the menopause transition are needed.

Eur J Clin Nutr. 2024 Nov 23. doi: 10.1038/s41430-024-01546-1. Online ahead of print.

Effects of 10 weeks of walking-based exercise training on resting substrate oxidation in postmenopausal women with obesity

Yasemin Güzel 1, Muhammed Mustafa Atakan 2, Hüseyin Hüsrev Turnagöl 2, Şükran Nazan Koşar 2

Background and aims: Accumulating evidence supports the effectiveness of moderate-intensity aerobic training on metabolic health, with limited studies investigating change in resting substrate oxidation. The aim of this study was to explore whether 10 weeks of walking-based aerobic training would alter substrate oxidation in postmenopausal women with obesity. Methods and results: Twenty-four postmenopausal women with obesity who were assigned into the control (n = 12) or exercise groups (n = 12) undertook a 10-week aerobic training program (3 d·week-1) that involved walking exercises at 50-70% of heart rate reserve on a treadmill, with exercise volume increased from 25 to 40 min·day-1. Resting metabolic rate (RMR) and body composition were measured pre- and post-training. Whole-body substrate oxidation was calculated using respiratory data collected during RMR measurement via indirect calorimetry. No significant change was noted ($p > 0.05$) in resting fat oxidation and carbohydrate oxidation in the exercise group. Resting respiratory exchange ratio and RMR did not alter in response to the training program ($p > 0.05$). Conclusion: Our results show that a 10-week of moderate-intensity aerobic training does not modify substrate oxidation in postmenopausal women with obesity.

Front Pharmacol. 2024 Nov 7:15:1478819. doi: 10.3389/fphar.2024.1478819. eCollection 2024. **(FREE)**

Estrogen: the forgotten player in metaflammation

Bao-Ting Zhu 1, Qing-Qing Liao, Hai-Ying Tian, Dao-Jiang Yu, Teng Xie, Xi-Lu Sun, Xin-Meng Zhou et al.

Metaflammation is low-grade inflammation triggered by chronic metabolic imbalance and caused by dysregulated metabolites in metabolic inflammatory syndrome (MIS), which includes four diseases: obesity, type 2 diabetes mellitus (T2DM), atherosclerosis (AS), and nonalcoholic fatty liver diseases (NAFLD, recently proposed to be replaced by metabolic dysfunction-associated steatotic liver disease, MASLD). These diseases exhibit apparent sex dimorphism as regards MIS. Estrogen not only plays a crucial role in gender differences in adults but also possesses an anti-inflammatory effect on many metabolic diseases. In this study, we present a prediction of the differential proteins and signal transduction of estrogen in MIS through network pharmacology and review the validated studies on obesity, T2DM, AS, and NAFLD. Subsequently, we compared them to obtain valuable targets, identify current gaps, and provide perspectives for future research on the mechanisms of estrogen in metaflammation.

J Endocr Soc. 2024 Nov 2;8(12):bvae192. doi: 10.1210/jendso/bvae192. eCollection 2024 Oct 29.

Impaired Muscle Parameters in Individuals With Premature Ovarian Insufficiency: A Pilot Study

Navira Samad 1 2, Wei Ling Chiu 3, Hanh H Nguyen, Zhong X Lu 2 4, Margaret Zacharin 5, Peter R Ebeling, et al.

Context: Although bone loss is a recognized consequence of premature ovarian insufficiency (POI), the impact on skeletal muscle health is less well-defined .Objective: To compare muscle mass and function parameters between women with POI and controls. Methods: Cross-sectional study from a tertiary health network and community between 2017 and 2023. Participants were women aged 20 to 40 years with POI associated with Turner syndrome (TS; n = 11) and spontaneous normal karyotype POI (s-POI; n = 7) compared with age- and body mass index (BMI)-matched controls (n = 45). Results: All women with POI (mean age 28.70 ± 5.58) were using hormone therapy. Appendicular lean mass (ALM)/total fat mass and ALM/ BMI was lower in the POI group. Height-adjusted muscle mass parameters did not differ between groups. Compared with controls, women with TS and s-POI had lower muscle strength (TS 19.72 ± 4.89; s-POI 22.73 ± 5.35; controls 28.67 ± 5.65 kg; P < .001) and muscle quality (TS 11.09 ± 2.06; s-POI 10.89 ± 2.01; controls 14.10 ± 1.99 kg/kg; P < .001). Higher C-reactive protein levels, higher depression scores, and lower sex-steroid and physical activity levels were observed in women with POI (P < .05). Creatinine/cystatin C ratio, insulin-like growth factor-1, and transthyretin did not differ between groups. Conclusion: Despite hormone therapy usage, women with POI exhibited compromised muscle parameters compared with age-matched controls. Potential contributory factors were identified. Further research is required to clarify pathophysiology and inform management strategies.

PLoS Med. 2024 Nov 21;21(11):e1004435. doi: 10.1371/journal.pmed.1004435. eCollection 2024 Nov.

Long-term cognitive effects of menopausal hormone therapy: Findings from the KEEPS Continuation Study

Carey E Gleason 1 2, N Maritza Dowling 3, Firat Kara, Taryn T James 1, Hector Salazar, Carola A Ferrer Simo, et al.

Background: Findings from Kronos Early Estrogen Prevention Study (KEEPS)-Cog trial suggested no cognitive benefit or harm after 48 months of menopausal hormone therapy (mHT) initiated within 3 years of final menstrual period. To clarify the long-term effects of mHT initiated in early postmenopause, the observational KEEPS Continuation Study

reevaluated cognition, mood, and neuroimaging effects in participants enrolled in the KEEPS-Cog and its parent study the KEEPS approximately 10 years after trial completion. We hypothesized that women randomized to transdermal estradiol (tE2) during early postmenopause would show cognitive benefits, while oral conjugated equine estrogens (oCEE) would show no effect, compared to placebo over the 10 years following randomization in the KEEPS trial. Methods and findings: The KEEPS-Cog (2005-2008) was an ancillary study to the KEEPS (NCT00154180), in which participants were randomized into 3 groups: oCEE (Premarin, 0.45 mg/d), tE2 (Climara, 50 μg/d) both with micronized progesterone (Prometrium, 200 mg/d for 12 d/mo) or placebo pills and patch for 48 months. KEEPS Continuation (2017-2022), an observational, longitudinal cohort study of KEEPS clinical trial, involved recontacting KEEPS participants approximately 10 years after the completion of the 4-year clinical trial to attend in-person research visits. Seven of the original 9 sites participated in the KEEPS Continuation, resulting in 622 women of original 727 being invited to return for a visit, with 299 enrolling across the 7 sites. KEEPS Continuation participants repeated the original KEEPS-Cog test battery which was analyzed using 4 cognitive factor scores and a global cognitive score. Cognitive data from both KEEPS and KEEPS Continuation were available for 275 participants. Latent growth models (LGMs) assessed whether baseline cognition and cognitive changes during KEEPS predicted cognitive performance at follow-up, and whether mHT randomization modified these relationships, adjusting for covariates. Similar health characteristics were observed at KEEPS randomization for KEEPS Continuation participants and nonparticipants (i.e., women not returning for the KEEPS Continuation). The LGM revealed significant associations between intercepts and slopes for cognitive performance across almost all domains, indicating that cognitive factor scores changed over time. Tests assessing the effects of mHT allocation on cognitive slopes during the KEEPS and across all years of follow-up including the KEEPS Continuation visit were all statistically nonsignificant. The KEEPS Continuation study found no long-term cognitive effects of mHT, with baseline cognition and changes during KEEPS being the strongest predictors of later performance. Cross-sectional comparisons confirmed that participants assigned to mHT in KEEPS (oCEE and tE2 groups) performed similarly on cognitive measures to those randomized to placebo, approximately 10 years after completion of the randomized treatments. These findings suggest that mHT poses no long-term cognitive harm; conversely, it provides no cognitive benefit or protective effects against cognitive decline. Conclusions: In these KEEPS Continuation analyses, there were no long-term cognitive effects of short-term exposure to mHT started in early menopause versus placebo. These data provide reassurance about the long-term neurocognitive safety of mHT for symptom management in healthy, recently postmenopausal women, while also suggesting that mHT does not improve or preserve cognitive function in this population.

Age Ageing. 2024 Nov 1;53(11):afae254. doi: 10.1093/ageing/afae254.

Menopause age and type and dementia risk: a pooled analysis of 233 802 women

Annette J Dobson 1, Zhiwei Xu 1, Louise F Wilson 1, Hsin-Fang Chung 1, Sven Sandin 2 3, et al.

Objectives: It is not clear whether the association between younger age at menopause and increased risk of dementia is modified by type of menopause. We examined the association of age at menopause or hysterectomy with dementia risk in three groups of women: those with natural menopause, premenopausal bilateral oophorectomy (surgical menopause) or premenopausal hysterectomy (without bilateral oophorectomy). Study design: Individual-level data from 233 802 women in five prospective cohort studies (from four countries) were harmonized and pooled. Cox proportional hazards models were used to assess the associations of age at natural menopause, surgical menopause or premenopausal hysterectomy, with age at dementia, death (where available) or end of follow-up, whichever came first.

Results: The study followed women to the median age of 72 years (quartiles 67, 76 years). The median follow-up time was 13 years, with 3262 dementia cases during this period. Compared with women with menopause at 50-52 years, women with menopause <40 years had a higher risk of dementia (adjusted hazard ratio (aHR): 1.47, 95% confidence interval (CI): 1.39, 1.56). This level of risk was comparable to that of current smoking and stroke, which are well-established risk factors for dementia. Increased risk of dementia associated with surgical menopause or premenopausal hysterectomy (compared to natural menopause) was not apparent after adjustment for age at menopause (aHR 0.99, 95% CI: 0.93, 1.04 and aHR 0.97, 95% CI: 0.95, 1.00, respectively). Conclusion: Women who experience menopause before the age of 40 years have a higher risk of dementia irrespective of type of menopause.