Selección de Resúmenes de Menopausia

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Role of body mass index and weight change in the risk of cancer: A systematic review and meta-analysis of 66 cohort studies

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Background: This study was designed to evaluate the effects of body mass index (BMI) and weight change on the risk of developing cancer overall and cancer at different sites. Methods: We searched PubMed and other databases up to July 2023 using the keywords related to 'risk', 'cancer', 'weight', 'overweight', and 'obesity'. We identified eligible studies, and the inclusion criteria encompassed cohort studies in English that focused on cancer diagnosis and included BMI or weight change as an exposure factor. Multiple authors performed data extraction and quality assessment, and statistical analyses were carried out using RevMan and R software. We used random- or fixed-effects models to calculate the pooled relative risk (RR) or hazard ratio along with 95% confidence intervals (CIs). We used the Newcastle-Ottawa Scale to assess study quality. Results: Analysis included 66 cohort studies. Compared to underweight or normal weight, overweight or obesity was associated with an increased risk of endometrial cancer, kidney cancer, and liver cancer but a decreased risk of prostate cancer and lung cancer. Being underweight was associated with an increased risk of gastric cancer and lung cancer but not that of postmenopausal breast cancer or female reproductive cancer. In addition, weight loss of more than five kg was protective against overall cancer risk. Conclusions: Overweight and obesity increase the risk of most cancers, and weight loss of >5 kg reduces overall cancer risk. These findings provide insights for cancer prevention and help to elucidate the mechanisms underlying cancer development.

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Comparison of metabolic risk factors, lipid indices, healthy eating index, and physical activity among premenopausal, menopausal, and postmenopausal women

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Introduction: In this study, we aimed to compare metabolic risk factors, lipid indices, healthy eating index, and physical activity among premenopausal, menopausal, and postmenopausal women. Methods: In this cross-sectional study, a total of 4,732 women participating in the Hoveyzeh Cohort Study were placed into three groups of premenopausal (n=736), menopausal (n=396), and postmenopausal (n=917) women, according to the inclusion and exclusion criteria.Re sults: The prevalence of metabolic syndrome was 43.3%, 55.6%, and 62.8% in premenopausal, menopausal, and postmenopausal women, respectively. After menopause, the prevalence of hypertension (50.2%), dyslipidemia (61.2%), diabetes (37.7%), and abdominal obesity according to the Iranian guidelines (75.9%) was higher than before menopause. Based on the results, cardiovascular disease had the highest prevalence after menopause (23%). The weight-adjusted waist index (WWI) had the highest odds ratio (OR) among indices, with values of 2.94 and 1.93 in menopausal and postmenopausal women, respectively (P<0.001). According to the Healthy Eating Index-2015 (HEI-2015), the total consumption of fruits, vegetables, seafood, and protein was higher in premenopausal women than in postmenopausal women, and the consumption of foods containing sugar was higher in menopausal women than in premenopausal women. The results showed that the level of physical activity was the highest and the lowest in premenopausal and postmenopausal women, respectively (P<0.001). Conclusion: Menopause leads to an increase in the prevalence of metabolic syndrome. The Atherogenic Index of Plasma (AIP), Triglyceride Glucose (TyG) index, WWI, and physical activity index increased in postmenopausal women compared to premenopausal women. The TyG index, WWI, and HEI-2015 did not show significant differences between the groups, based on the multiple regression analysis.

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Regular use of aspirin and statins reduces the risk of cancer in individuals with systemic inflammatory diseases

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Aspirin has shown potential for cancer prevention, but a recent large randomized controlled trial found no evidence for a reduction in cancer risk. Given the anti-inflammatory effects of aspirin, systemic inflammatory diseases (SIDs), such as osteoporosis, cardiovascular diseases, and metabolic diseases, could potentially modify the aspirin-cancer link. To investigate the impact of aspirin in people with SIDs, we conducted an observational study on a prospective cohort of 478,615 UK Biobank participants. Individuals with at least one of the 41 SIDs displayed a higher cancer risk than those without SIDs. Regular aspirin use showed protective effects exclusively in patients with SID, contrasting an elevated risk among their non-SID counterparts. Nonetheless, aspirin use demonstrated preventative potential only for 9 of 21 SID-associated cancer subtypes. Cholesterol emerged as another key mediator linking SIDs to cancer risk. Notably, regular statin use displayed protective properties in patients with SID but not in their non-SID counterparts. Concurrent use of aspirin and statins exhibited a stronger protective association in patients with SID, covering 14 common cancer subtypes. In summary, patients with SIDs may represent a population particularly responsive to regular aspirin and statin use. Promoting either combined or individual use of these medications within the context of SIDs could offer a promising chemoprevention strategy.

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ChatGPT in Urogynecology Research: Novel or Not?

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Importance: ChatGPT (Chat Generative Pre-trained Transformer) is an artificial intelligence (AI) chatbot that provides human-like responses to text prompts. Little is known regarding ChatGPT's ability to identify original research ideas in urogynecology. Objective: Our objective was to evaluate the accuracy of ChatGPT in generating novel systematic review (SR) and research ideas in urogynecology. Study design: In this cross-sectional study, we asked ChatGPT to generate 10 novel SR ideas that have not yet been published for each of the following 5 topics: (1) urogynecology, (2) tension-free vaginal tape slings, (3) pessaries for pelvic organ prolapse, (4) beta-3 agonist use for overactive bladder, and (5) sexual function with genitourinary syndrome of menopause. Research idea novelty was assessed by cross-referencing PubMed and Scopus to determine if any prior publications existed. Results: ChatGPT proposed 50 total SR ideas, including 10 for each prompt. Overall, ChatGPT showed 54% overall accuracy in developing novel SR ideas. Nonnovel SR ideas had a median of 19 (interquartile range, 8-35) published SRs on the suggested topic. When stratified by prompt type, 50% of general and 40-70% of specific urogynecology proposed SR ideas were found to be novel. There were no publications of any type identified for 7 of the 50 suggested ideas. Conclusions: ChatGPT may be helpful for identifying novel research ideas in urogynecology, but its accuracy is limited. It is essential for those using ChatGPT to review existing literature to ensure originality and credibility. As AI transforms health care, we encourage all urogynecologists to familiarize themselves with popular AI platforms.

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Altered brain morphology and functional connectivity in postmenopausal women: automatic segmentation of whole-brain and thalamic subnuclei and resting-state fMRI

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The transition to menopause is associated with various physiological changes, including alterations in brain structure and function. However, menopause-related structural and functional changes are poorly understood. The purpose of this study was not only to compare the brain volume changes between premenopausal and postmenopausal women, but also to evaluate the functional connectivity between the targeted brain regions associated with structural atrophy in postmenopausal women. Each 21 premenopausal and postmenopausal women underwent magnetic resonance imaging (MRI). T1-weighted MRI and resting-state functional MRI data were used to compare the brain volume and seed-based functional connectivity, respectively. In statistical analysis, multivariate analysis of variance, with age and whole brain volume as covariates, was used to evaluate surface areas and subcortical volumes between the two groups. Postmenopausal women showed significantly smaller cortical surface, especially in the left medial orbitofrontal cortex (mOFC), right superior temporal cortex, and right lateral orbitofrontal cortex, compared to premenopausal women ($p < 0.05$, Bonferroni-corrected) as well as significantly decreased functional connectivity between the left mOFC and

the right thalamus was observed ($p < 0.005$, Monte-Carlo corrected). Although postmenopausal women did not show volume atrophy in the right thalamus, the volume of the right pulvinar anterior, which is one of the distinguished thalamic subnuclei, was significantly decreased ($p < 0.05$, Bonferroni-corrected). Taken together, our findings suggest that diminished brain volume and functional connectivity may be linked to menopause-related symptoms caused by the lower sex hormone levels.