Selección de Resúmenes de Menopausia

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An 11-year longitudinal analysis of refracture rates and public hospital service utilisation in Australia's most populous state

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This detailed 11-year longitudinal analysis calculated the public health cost of managing refractures in people aged ≥ 50 years in Australia's most populous state. It provides current and projected statewide health system costs associated with managing osteoporosis and provides a foundation to evaluate a novel statewide model of fracture prevention. Purpose: The purpose of this longitudinal analysis was to calculate current and projected refracture rates and associated public hospital utilisation and costs in New South Wales (NSW), Australia. These results will be used to inform scaled implementation and evaluation of a statewide Osteoporotic Refracture Prevention (ORP) model of care. Methods: Linked administrative data (inpatient admissions, outpatient attendances, Emergency Department presentations, deaths, cost) were used to calculate annual refracture rates and refracture-related service utilisation between 2007 and 2018 and healthcare costs between 2008 and 2019. Projections for the next decade were made using 'business-as-usual' modelling. Results: Between 2007 and 2018, 388,743 people aged ≥ 50 years experienced an index fracture and 81,601 had a refracture. Refracture was more common in older people (rising from a cumulative refracture rate at 5 years of 14% in those aged 50-64 years, to 44% in those aged > 90 years), women with a major index fracture (5-year cumulative refracture rate of 26% in females, compared to 19% for males) or minimal trauma index fracture and those with an osteoporosis diagnosis (5-year cumulative refracture rate of 36% and 22%, respectively in those with and without an osteoporosis diagnosis). Refractures increased from 8774 in 2008 to 14,323 in 2018. The annual cost of refracture to NSW Health increased from AU$130 million in 2009 to AU$194 million in 2019. It is projected that, over the next decade, if nothing changes, 292,537 refracture-related hospital admissions and Emergency Department presentations and 570,000 outpatient attendances will occur, at an estimated total cost to NSW Health of AU$2.4 billion. Conclusion: This analysis provides a detailed picture of refractures and associated projected service utilisation and costs over the next decade in Australia's most populous state. Understanding the burden of refracture provides a foundation for evaluation of a novel statewide ORP model of care to prevent refractures in people aged ≥ 50 years.

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Early menopause results from instead of causes premature general ageing

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Recent genome-wide association studies have shown that the majority of genes involved in menopause are also instrumental in double-strand break repair and mismatch and base excision repair of DNA. Cumulative DNA damage causes cellular senescence resulting in exhaustion of somatic cell renewal capacity and cellular dysfunction, and eventually to accelerated cell death, generally called ageing. A similar erosion of the genome occurs within the germ cell line and thus in the ovaries. Subsequently, the systemic 'survival' response intentionally suppresses the sex-steroid hormone output, which in turn may contribute to the onset of menopause. The latter occurs in particular when age-dependent DNA damage accumulates. Both effects are expected to synergize to promote ovarian silencing resulting in menopause. Consequently, ageing of the soma seems to be a primary driver for the loss of ovarian function in women. Therefore, menopause is the result rather than the cause of ageing.

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Premature menopause and autoimmune primary ovarian insufficiency in two international multi-center cohorts

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Objective: To investigate markers of premature menopause (<40 years), and specifically the prevalence of autoimmune primary ovarian insufficiency (POI) in European women. Design: Postmenopausal women were categorized according to age at menopause and self-reported reason for menopause in a cross-sectional analysis of 6870 women. Methods:

Variables associated with timing of menopause and hormone measurements of 17β-estradiol and follicle stimulating hormone (FSH) were explored using multivariable logistic regression analysis. Specific immunoprecipitating assays of steroidogenic autoantibodies against 21-hydroxylase (21-OH), side chain cleavage enzyme (anti-SCC) and 17alpha-hydroxylase (17 OH) as well as NACHT leucine-rich-repeat protein 5 (NALP5) were used to identify women with likely autoimmune POI.Results: Premature menopause was identified in 2.8% of women, and these women had higher frequencies of nulliparity (37.4% vs 19.7%), obesity (28.7% vs 21.4%), osteoporosis (17.1% vs 11.6%), hormone replacement therapy (59.1% vs 36.9%) and never smokers (60.1% vs 50.9%), ($p<0.05$), compared to women with menopause ≥ 40 years. Iatrogenic causes were found in 91 (47%) and non-ovarian causes in 27 (14%) women, while 77 (39%) women were classified as POI of unknown cause, resulting in a 1.1% prevalence of idiopathic POI. After adjustments nulliparity was the only variable significantly associated with POI (OR 2.46; 95% CI 1.63-3.42). Based on the presence of autoantibodies against 21 OH and SCC, 4.5% of POI cases were of likely autoimmune origin. Conclusion: Idiopathic POI affects 1.1% of all women and almost half of women with premature menopause. Autoimmunity explains 4.5% of these cases judged by positive steroidogenic autoantibodies.

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Heart health in polycystic ovary syndrome: time to act on the data

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Polycystic ovary syndrome (PCOS), first described over 80 years ago, is a chronic condition with gynecologic, metabolic, and psychologic manifestations. Both hyperandrogenism and insulin resistance are associated with the high prevalence of cardiometabolic risk factors described in this population. Although robust data in reproductive-age women demonstrate a high rate of obesity, impaired glucose tolerance, hypertension, dyslipidemia, and metabolic syndrome, studies show mixed results in the adolescent and menopausal age groups. There is emerging evidence to support an association between PCOS and nonalcoholic fatty liver disease and obstructive sleep apnea, conditions known to influence cardiovascular disease (CVD) outcomes. Studies from different world regions show an increased risk of subclinical atherosclerosis, measured by a variety of modalities, especially in reproductive-age women. Similarly, there is increasing evidence for a higher prevalence of CVD events, such as stroke, myocardial infarction, and ischemic heart disease. Over the past decade, a number of medical society guidelines have recommended screening women with PCOS for cardiometabolic risk factors for the primary prevention of CVD. This series of Views and Reviews highlights the urgency to implement these guidelines and invest in identifying newer therapies for comprehensively managing the symptoms of PCOS while lowering long-term cardiometabolic risk.

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The impact of endogenous estrogen exposure duration on fracture incidence; a longitudinal cohort study

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Context: Although it is well documented that estrogen hormone is positively associated with bone mineral density and lower risk of fracture, there are limited studies on the association between duration of endogenous estrogen exposure (EEE) and fracture, especially by longitudinal design. Objective: This study aimed to investigate the relationship between EEE with fracture incidence by longitudinal design in a community-based study. Methods: A total of 5,269 eligible post-menarcheal women, including 2,411 premenopausal and 2,858 menopausal women were recruited from among Tehran-Lipid and Glucose-Study. Cox proportional hazards regression model with adjustment of potential confounders was performed to assess the relationship between duration of EEE and incident of any hospitalized fractures. Results: A total of 26.7 % (1409 out of 5269) women were menopause at the baseline and 2858 of the remaining participants reached menopause at the end of follow-up. Results of the unadjusted model demonstrated that the EEE z-score was negatively associated with fracture incidence (unadjusted hazard ratio (HR): 0.81, 95% CI: 0.68-0.96) in post-menarcheal women, indicating that per one SD increase of EEE z-score, the hazard of fracture reduced by 19%. Results remained statistically unchanged after adjustment for potential confounders (adjusted HR: 0.70, 95% CI: 0.58-0.86). Conclusion: The findings of this cohort study suggest that a longer duration of EEE has a protective effect on fracture incidence; a point that needs to be considered in fracture risk assessment.

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Menopause Hormone Therapy on Lipid Profile in Postmenopausal Women: A Systematic Review and Meta-Analysis

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Importance: The incidence of dyslipidemia increases after menopause. Menopause hormone therapy (MHT) is recommended for menopause related disease. However, it is benefit for lipid profiles is inconclusive. Objective: To conduct a systematic review and meta-analysis of randomized controlled trials to evaluate the effects of MHT on lipid profile in postmenopausal women. Evidence Review: Related articles were searched on PubMed/Medline, EMBASE, Web of Science, and Cochrane Library databases from inception to December 2020. Data extraction and quality evaluation were performed independently by two reviewers. The methodological quality was assessed using the "Cochrane Risk of Bias checklist". Results: Seventy-three eligible studies were selected. The results showed that MHT significantly decreased the levels of TC (WMD: -0.43, 95% CI: -0.53 to -0.33), LDL-C (WMD: -0.47, 95% CI: -0.55 to -0.40) and LP (a) (WMD: -49.46, 95% CI: -64.27 to -34.64) compared with placebo or no treatment. Oral MHT led to a significantly higher TG compared with transdermal MHT (WMD: 0.12, 95% CI: 0.04-0.21). The benefits of low dose MHT on TG was also concluded when comparing with conventional-dose estrogen (WMD: -0.18, 95% CI: -0.32 to -0.03). The results also showed that conventional MHT significantly decreased LDL-C (WMD: -0.35, 95% CI: -0.50 to -0.19), but increase TG (WMD: 0.42, 95%CI: 0.18-0.65) compared with tibolone. When comparing with the different MHT regimens, estrogen (E) + progesterone (P) regimen significantly increased TC (WMD: 0.15, 95% CI: 0.09 to 0.20), LDL-C (WMD: 0.12, 95% CI: 0.07-0.17) and Lp(a) (WMD: 44.58, 95% CI:28.09-61.06) compared with estrogen alone. Conclusion and Relevance: MHT plays a positive role in lipid profile in postmenopausal women, meanwhile for women with hypertriglyceridemia, low doses or transdermal MHT or tibolone would be a safer choice. Moreover, E + P regimen might blunt the benefit of estrogen on the lipid profile.