Metabolic Syndrome and Menopause: The Impact of Menopause Duration on Risk Factors and Components

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Purpose: This study was undertaken to investigate the impact of menopause duration on the risk factors and components of metabolic syndrome (MetS). Patients and methods: Women aged between 45 and 60 years participated in the study. Participants were split into two groups based on the duration of menopause. Women who had been menopausal for 1 to ≤5 years constituted Group 1, while women with 6-10 years of menopause duration formed Group 2. Results: Significant differences were observed between the two groups for various factors associated with MetS, including anthropometric measurements, biochemical markers, and blood pressure. The conicity index, weight-to-hip ratio, waist-to-height ratio, visceral adiposity index (VAI), and menopause duration were associated with increased risk of MetS. Our multivariate logistic regression model showed that women with elevated VAI had a 2.073-fold (95% CI: 1.73-2.48, p<0.001) increased risk of MetS, while women with menopause duration more than 5 years had a 6.44-fold (95% CI: 3.336-12.45, p<0.001) increased risk of MetS. Conclusion: The duration of menopause was found to be linked to a higher risk of MetS. Our results emphasize the importance of monitoring and managing metabolic health in women during the menopausal period, particularly those with extended menopause duration.

Bone Health in Premenopausal Women with Coeliac Disease: An Observational Study

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Low bone mineral density (BMD) is common in adults with coeliac disease (CD), even in individuals adhering to a gluten-free diet (GFD). Women are more likely to have low BMD and have an increased risk of osteoporosis, so women with pre-existing low BMD related to CD are at an even higher risk. BMD assessed by dual X-ray absorptiometry (DXA) and bone quality assessed through quantitative ultrasound (QUS) were investigated in 31 premenopausal women with CD consuming a GFD, and 39 matched healthy controls from the Lower North Island, New Zealand. In addition, bone metabolism and nutrient status were assessed, and four-day diet diaries were used to estimate nutrient intake. No statistically significant differences were found in BMD assessed by DXA between the two groups at the hip, lumbar spine or forearm. However, the parameters measured by the QUS were significantly lower in CD participants. Dietary data indicated significantly lower intakes of energy, dietary fibre, magnesium and phosphorus in women with CD, likely as a result of a reduced intake of wholegrain foods, and suggested that both groups had inadequate intake of calcium. No significant differences were demonstrated in biochemical parameters. BMD and bone biomarkers indicated no differences between coeliac and healthy women in New Zealand. However, these findings suggest that QUS may be more sensitive for the coeliac population, due to the disease's affect on the trabecular bone, and warrant further research.

Exploring the Feasibility of Estrogen Replacement Therapy as a Treatment for Perimenopausal Depression: A Comprehensive Literature Review

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Perimenopausal depression (PMD) is a psychological disorder that occurs in women during perimenopause. In addition to the common clinical symptoms of depression, it often manifests as a perimenopausal complication, and its notable cause is the decline in estrogen levels. Despite numerous studies and trials confirming the benefits of estrogen replacement therapy (ERT) for PMD, ERT remains unapproved for treating PMD. Therefore, we conducted a literature
search using selected keywords in PubMed and Google Scholar to write a review discussing the feasibility of using ERT for PMD. This review examines the potential of ERT for PMD in terms of its underlying mechanisms, efficacy, safety, and time window. These four aspects suggest that ERT is a viable option for PMD treatment. However, the risk of thrombosis and stroke with ERT is a matter of contention among medical experts, with a paucity of clinical data. Consequently, further clinical trial data are required to ascertain the safety of ERT.

Pharmacotherapeutic Considerations on Telomere Biology: The Positive Effect of Pharmacologically Active Substances on Telomere Length
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Telomeres are part of chromatin structures containing repeated DNA sequences, which function as protective caps at the ends of chromosomes and prevent DNA degradation and recombination, thus ensuring the integrity of the genome. While telomere length (TL) can be genetically inherited, TL shortening has been associated with ageing and multiple xenobiotics and bioactive substances. TL has been characterised as a reliable biomarker for the predisposition to developing chronic pathologies and their progression. This narrative review aims to provide arguments in favour of including TL measurements in a complex prognostic and diagnostic panel of chronic pathologies and the importance of assessing the effect of different pharmacologically active molecules on the biology of telomeres. Medicines used in the management of cardiovascular diseases, diabetes, schizophrenia, hormone replacement therapy at menopause, danazol, melatonin, and probiotics have been studied for their positive protective effects against TL shortening. All these classes of drugs are analysed in the present review, with a particular focus on the molecular mechanisms involved.

Treatment utilization and non-drug interventions for vasomotor symptoms in breast cancer survivors taking endocrine therapy: Real-world findings from the United States and Europe
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Objectives: Vasomotor symptoms induced by endocrine therapy are common in breast cancer survivors and a risk factor for therapy discontinuation and lower quality of life. The REALISE study evaluated the real-world treatment landscape in breast cancer survivors with vasomotor symptoms taking endocrine therapy, including pharmaceuticals, lifestyle changes, and over-the-counter products. Study design: Secondary analysis of the Adelphi Vasomotor Disease Specific Programme™, a large cross-sectional point-in-time survey and chart review conducted in the US and five European countries (February-October 2020). Oncologists provided demographic, clinical, and treatment data for adult breast cancer survivors with induced vasomotor symptoms taking endocrine therapy (tamoxifen or aromatase inhibitors); patients voluntarily completed self-report surveys on their symptom severity, concomitant sleep and/or mood symptoms, lifestyle changes, and use of over-the-counter products. Main outcome measures: Patient characteristics; vasomotor symptom severity; use of pharmaceuticals, lifestyle changes, and over-the-counter products (from pre-defined lists); lines of treatment. Results: Overall, 77 oncologists reported data for 618 breast cancer survivors, of whom 183 (29.6 %) completed self-report forms. Physicians classified 420 (68.0 %) women as experiencing moderate-severe vasomotor symptoms, of whom 66.9 % were receiving treatment. In total, 15.2 % of all breast cancer survivors were prescribed systemic hormone therapy. Venlafaxine (24.7 %), citalopram (16.5 %), and paroxetine (13.6 %) were the most commonly prescribed nonhormonal medications. Lifestyle changes (77.8 %) and over-the-counter products (61.6 %) were common, especially in patients with concomitant sleep and/or mood symptoms. Conclusions: Despite contraindications, a relatively large proportion of treatment-seeking breast cancer survivors with vasomotor symptoms were prescribed systemic hormone therapy. This, combined with high patient-reported use of lifestyle changes and over-the-counter products, suggests a need for symptomatic relief and demand for new nonhormonal alternatives with established safety profiles in this population.

Associations of endogenous estrogens, plasma Alzheimer's disease biomarkers, and APOE4 carrier status on regional brain volumes in postmenopausal women
Female Reproductive Factors and Risk of Mild Cognitive Impairment and Dementia: The HUNT Study

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Background: More women are living with dementia than men worldwide and there is a need to investigate causes for this female preponderance. While reproductive factors have been investigated as risk factors, the results are conflicting. We aim to clarify this using a large cohort with a long observation time, adjusting for multiple health and lifestyle variables and encompassing a wider range of cognitive impairment. Objective: To study the association between menopause age, menarche age and risk of mild cognitive impairment (MCI) and dementia. Setting: The Trøndelag Health study (HUNT), a longitudinal population health study in Norway (1984-2019). Participants: Women who were ≥70 years in 2017-2019 were assessed for cognitive impairment. Measurements: Data on menopause age and menarche age were obtained from questionnaires. Diagnosis of MCI or dementia was set using a standardised procedure by a diagnostic group of nine physicians. Multinomial logistic regression was used to study the association between menopause age, menarche age and risk of and risk of mild cognitive impairment (MCI) and dementia. Results: We found no significant associations between menarche age and dementia and no associations with MCI. Menopause age p<45years was associated with a 56% higher risk compared to mean menopause age 50 years. We found no significant associations between menopause age, menarche age and risk of mild cognitive impairment (MCI) and dementia. Conclusions: Older menopause age and longer reproductive span corresponding to longer oestrogen exposure were associated with a lower dementia risk. Future studies should explore therapeutic options to offset this risk in women.


A randomized, pilot trial comparing vaginal hyaluronic acid to vaginal estrogen for the treatment of genitourinary syndrome of menopause

Objective: The aim of this study was to compare the efficacy of a non-hormone alternative, vaginal hyaluronic acid (HLA), to a standard-of-care therapy, vaginal estrogen, for the treatment of genitourinary syndrome of menopause (GSM). Methods: This was a randomized, parallel arm pilot trial. Women with GSM were randomized to an HLA vaginal suppository or vaginal estrogen cream for 12 wk to compare the primary outcome, the vulvovaginal symptom questionnaire (VSQ) score. Secondary outcomes included the following: the female sexual function index (FSFI), the vaginal symptom index (VSI), visual analog scale (VAS) for dyspareunia, vaginal itching, and vaginal dryness, patient global impression of improvement (PGI-I) at follow-up, vaginal maturation index, and vaginal pH. Differences between treatment groups were estimated using the two-sided, two-sample t-test and 95% confidence intervals. Results: Forty-nine women were randomized and 45 participants (vaginal estrogen = 23, vaginal HLA = 22) provided data at week 12. Baseline characteristics were similar in both groups. On the VSQ, there was no observed difference in overall scores between the HLA and vaginal estrogen groups at 12 wk (P = 0.81). Improvement was seen within both treatment groups on the VSQ after 12 wk. The VAS score, total VSI score, total FSFI score, and vaginal pH improved over time; however, improvement did not differ between study arms. Over 90% participants noted improvement on the PGI-I in both groups (P = 0.61). No treatment-related serious adverse events occurred. Conclusions: There were no clinically meaningful differences between vaginal HLA and vaginal estrogen for the treatment of GSM after 12 wk. Vaginal HLA may be a promising non-hormone therapy for GSM.