



Selección de Resúmenes de Menopausia

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Menopause and frailty: a scoping review.

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IMPORTANCE AND OBJECTIVE: Frailty refers to the decline in physiological reserve capacity caused by the deterioration of multiple physiological systems (brain, endocrine system, immune system, and skeletal muscle), leading to increased vulnerability and decreased stress capacity. Women have a higher prevalence of frailty than men, although the epidemiological factors underlying this phenomenon are not fully understood. Menopause and menopause-related characteristics may be among the contributing factors. Hence, the purpose of this scoping review was to explore the relationship between menopause and frailty. We attempted to summarize information such as the age that menopause occurs, years since menopause, types of menopause, and hormones and inflammatory markers of frailty among postmenopausal women. **METHODS:** PubMed, EMBASE, The Cochrane Library, the Cumulative Index to Nursing and Allied Health Literature and Web of Science, the China National Knowledge Infrastructure, the China Biomedical Literature Service System, Wanfang Database and the WeiPu (VIP) Database were searched from inception until April 3, 2019. Supplementary searches of the references, cited documents, and similar documents of the included literature were also carried out. **DISCUSSION AND CONCLUSIONS:** Of 762 papers identified, 15 articles matching the criteria were included. The prevalence of frailty among postmenopausal women ranged from 5.9% to 57.3%. Existing studies suggest that menopause is associated with frailty. Early menopause, hysterectomy, low-free testosterone levels, and high C-reactive protein levels may increase the likelihood of frailty among postmenopausal women. Few original studies have explored the relationship between estrogen and frailty and the results of these studies are conflicting. Changes in hormone and inflammatory cytokine levels may mediate frailty among postmenopausal women. More in-depth research would be required to better understand the physiological and etiological mechanisms of the occurrence of frailty among postmenopausal women.

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Effects of pharmacologic and nonpharmacologic interventions on menopause-related quality of life: a pooled analysis of individual participant data from four MsFLASH trials.

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OBJECTIVE: The Menopause Strategies: Finding Lasting Answers for Symptoms and Health network conducted three randomized clinical trials (RCTs) testing six interventions treating vasomotor symptoms (VMS), and also collected menopause-related quality of life (QOL) measures. A fourth RCT assessed an intervention for insomnia symptoms among women with VMS. We describe these seven interventions' effects on menopause-related QOL relative to control in women with VMS. **METHODS:** We pooled individual-level data from 1,005 peri- and postmenopausal women with 14 or more VMS/week across the four RCTs. Interventions included escitalopram 10 to 20 mg/d; yoga/aerobic exercise; 1.8 g/d omega-3-fatty acids; oral 17-beta-estradiol 0.5 mg/d; venlafaxine XR 75 mg/d; and cognitive behavioral therapy for insomnia (CBT-I). Outcomes measures were the Menopause-specific Quality of Life scale and its subscales. **RESULTS:** Significant improvements in total Menopause-specific Quality of Life from baseline were observed with estradiol, escitalopram, CBT-I, and yoga, with mean decreases of 0.3 to 0.5 points relative to control. The largest improvement in the vasomotor subscale was observed with estradiol (-1.2 points), with more modest but significant effects seen with escitalopram, yoga, and CBT-I. Significant improvements in the psychosocial subscale were observed for escitalopram, venlafaxine, and CBT-I. For the physical subscale, the greatest improvement was observed for CBT-I and exercise, whereas for the sexual subscale, the greatest improvement was observed for CBT-I, with yoga and estradiol demonstrating smaller effects. **CONCLUSIONS:** These results suggest that for menopause-related QOL, women have a variety of treatment strategies to choose from and can select an approach based on most bothersome symptoms and individual preferences.

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The associations of depressive symptoms to sleep-related symptoms during menopausal transition: racial/ethnic differences.

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OBJECTIVES: Despite an increasing number of studies reporting significant associations of depression to sleep problems in general, few studies have been conducted on racial/ethnic variations in the associations among midlife women in their menopausal transition. The purpose of this study was to determine the associations between depressive symptoms and sleep-related symptoms in a multiethnic group of midlife women while considering the women's race/ethnicity and menopausal status. **METHODS:** This was a secondary analysis of the data from 1,054 midlife women in two larger studies. The depression index for midlife women and the sleep index for midlife women were used to measure sleep-related symptoms and depressive symptoms. Descriptive and inferential statistics including hierarchical multiple regression analyses were used for data analyses. **RESULTS:** In the regression models by race/ethnicity, the total numbers (0.294 in non-Hispanic [NH] African Americans $\leq \beta \leq 0.410$ in NH Asians), and total severity scores (0.141 in Hispanic $\leq \beta \leq 0.365$ in NH Whites) of depressive symptoms were positively associated with the total severity of sleep-related symptoms (all $P < 0.01$). In the regression models by menopausal status, the total numbers ($\beta = 0.106$ in premenopausal and 0.443 in postmenopausal) and total severity scores ($0.272 \leq \beta \leq 0.561$) of depressive symptoms were positively associated with the total severity scores of sleep-related symptoms (all $P < 0.05$). **CONCLUSIONS:** Further studies with diverse groups of midlife women using objective measurements and biomarkers are warranted to confirm the findings.

Obes Facts. 2020 Jul 22:1-13. doi: 10.1159/000507554. [Epub ahead of print]

The Metabolic Syndrome Is a Risk Factor for Breast Cancer: A Systematic Review and Meta-Analysis.

Zhao P1, Xia N2, Zhang H3, Deng T3.

BACKGROUND: The metabolic syndrome (MetS) has been associated with the pathogenesis and prognosis of various malignant tumors. In this systematic review and meta-analysis, we explored the relationship between MetS and breast cancer (BC). **METHODS:** Relevant studies were systematically searched on Ovid MEDLINE, Embase, Cochrane database, and PubMed up to September 16, 2019, using "breast cancer" and "metabolic syndrome" as keywords. Eligible studies with clear definition of MetS, available data, and relationships between MetS and BC were evaluated using a risk ratio (RR) and its 95% confidence interval (CI). **RESULTS:** Twenty-five studies, including 13 cohort studies and 12 case-control studies, met the inclusion criteria, which assessed a total of 392,583 female participants and 19,628 BC patients. The results revealed a statistically significant increase by 52% of the risk of BC in adult females with MetS (RR = 1.49, 95% CI = 1.31-1.70, $p < 0.0001$). Postmenopausal MetS patients may have a twofold risk to suffer BC (RR = 2.01, 95% CI = 1.55-2.60, $p < 0.001$). The risk of BC increased markedly with the number of MetS components: RR = 1.00 for 1 component ($p = 0.976$), RR = 1.40 for 2 components ($p = 0.121$), and RR = 1.98 for >3 components ($p < 0.001$). The risk factors associated with BC were obesity, hypertension, and diabetes (RR = 1.33, 1.19, and 1.30 respectively, all $p < 0.001$). **CONCLUSIONS:** Our study demonstrated that MetS is highly related with BC. In postmenopausal patients with ≥ 2 MetS components or a combination of obesity, hypertension, and diabetes, routine BC screening could help to detect BC at an early stage.

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Potential Influence of Menstrual Status and Sex Hormones on female SARS-CoV-2 Infection: A Cross-sectional Study from Multicentre in Wuhan, China.

Ding T1, Zhang J1, Wang T1, Cui P1, Chen Z1, Jiang J1, Zhou S1, Dai J1, Wang B1, Yuan S1, Ma W1, et al.

BACKGROUND: Recent studies indicated that females have a lower morbidity, severe cases rate, mortality and better outcome than those of male. However, it remained to be addressed why this was the case. **METHODS AND FINDINGS:** To find the factors that potentially protect females from COVID-19, we recruited all confirmed patients hospitalized at three branches of Tongji Hospital (n=1902) from January 28 to March 8, 2020, and analyzed the correlation between menstrual status (n=509, including 68 from Mobile Cabin Hospital)/female hormones (n=78)/cytokines related to immunity and inflammation (n=263), and the severity/clinical outcomes in female patients under 60 years of age. Non-menopausal female patients had milder severity and better outcome compared with age-matched men ($p < 0.01/p < 0.01$). Menopausal patients had longer hospitalization times than non-menopausal patients (hazard

ratio [HR], 1.91; 95% confidence interval [CI], 1.06-3.46, $p=0.033$). Both anti-müllerian hormone (AMH) and estradiol (E2) showed a negative correlation with severity of infection (AHR=0.146/0.304, 95%CI = [0.026-0.824]/[0.092-1.001], $p=0.029/0.05$). E2 levels were negatively correlated with IL-2R, IL-6, IL-8 and TNF α in luteal phase (Pearson Correlation=-0.592, -0.558, -0.545, -0.623; $p=0.033, 0.048, 0.054, 0.023$), and with C3 in follicular phase (Pearson Correlation=-0.651; $p=0.030$). CONCLUSION: Menopause is an independent risk factor for female COVID-19 patients. AMH and E2 are potential protective factors, negatively correlated with COVID-19's severity, among which E2 is attributed to its regulation of cytokines related to immunity and inflammation. Hormone supplement might be a potential therapy for COVID-19 patients.

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Senolytic Drugs: From Discovery to Translation.

Kirkland JL1, Tchkonian T2.

Senolytics are a class of drugs that selectively clear senescent cells (SC). The first senolytic drugs Dasatinib, Quercetin, Fisetin, and Navitoclax were discovered using a hypothesis-driven approach. SC accumulate with aging and at causal sites of multiple chronic disorders, including diseases accounting for the bulk of morbidity, mortality, and health expenditures. The most deleterious SC are resistant to apoptosis and have up-regulation of anti-apoptotic pathways which defend SC against their own inflammatory senescence-associated secretory phenotype (SASP), allowing them to survive, despite killing neighboring cells. Senolytics transiently disable these SCAPs, causing apoptosis of those SC with a tissue-destructive SASP. Because SC take weeks to re-accumulate, senolytics can be administered intermittently - a "hit-and-run" approach. In pre-clinical models, senolytics delay, prevent, or alleviate frailty, cancers, and cardiovascular, neuropsychiatric, liver, kidney, musculoskeletal, lung, eye, hematological, metabolic, and skin disorders as well as complications of organ transplantation, radiation, and cancer treatment. As anticipated for agents targeting the fundamental aging mechanisms that are "root cause" contributors to multiple disorders, potential uses of senolytics are protean, potentially alleviating over 40 conditions in preclinical studies, opening a new route for treating age-related dysfunction and diseases. Early pilot trials of senolytics suggest they decrease senescent cells, reduce inflammation, and alleviate frailty in humans. Clinical trials for diabetes, idiopathic pulmonary fibrosis, Alzheimer's disease, COVID-19, osteoarthritis, osteoporosis, eye diseases, and bone marrow transplant and childhood cancer survivors are underway or beginning. Until such studies are done, it is too early for senolytics to be used outside of clinical trials.