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Menopause

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Chronicling of female endocrinology -from "*waltz*" to the "*tango*" of transition Saioa Torrealday, MD, and Lubna Pal, MBBS, FRCOG, MSc

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Depression, anxiety, and "the incredible shrinking vagina" James A. Simon, MD, CCD, NCMP, IF, FACOG

Original Studies

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Daily luteal serum and urinary hormone profiles in the menopause transition: Study of Women's Health Across the Nation

Nanette Santoro, MD, Samar R. El Khoudary, PhD, Alexis Nasr, MD, Ellen B. Gold, PhD, Gail Greendale, MD, Dan McConnell, PhD, Genevieve Neal-Perry, MD, PhD, Jelena Pavlovic, MD, PhD, Carol Derby, PhD, and Sybil Crawford, PhD *Women in the latter stages of the menopausal transition demonstrate good correlation between server and wing reproductive hormones in the lateal phase of the menotype*

between serum and urine reproductive hormones in the luteal phase of the menstrual cycle. Integrated luteal urinary pregnanediol glucuronide is a better measure of declining luteal function as women approach menopause compared to a single luteal serum progesterone.

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Prevalence of depression and anxiety in women newly diagnosed with vulvovaginal atrophy and dyspareunia

Erick Moyneur, MA, Katherine Dea, MSc, Leonard R. Derogatis, PhD, Francis Vekeman, MA, Alain Y. Dury, PhD, and Fernand Labrie, MD, PhD In addition to symptoms known to be directly associated with vulvovaginal atrophy (VVA), women have to live with many other conditions accompanying VVA. The present study quantifies the strength of association between VVA and the presence of depression, major depressive disorder, or anxiety.

(continued)

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Biocompatibility and zinc release testing of a zinc-containing vaginal gel

Ferenc Fenyvesi, PhD, Judit Váradi, PhD, Pálma Fehér, PhD, Ildikó Bácskay, PhD, Miklós Vecsernyés, PhD, Attila Sipos, MD, and Peter Takacs, MD, PhD, MBA *The zinc-containing vaginal gel showed no cytotoxicity after 72 hours of exposure. The release of zinc from the vaginal gel was rapid and permeated rapidly through the vaginal epithelial cell layers.*

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Physical characteristics and properties of estradiol softgel vaginal inserts

James A. Simon, MD, James H. Pickar, MD, Annette M. Shadiack, PhD, Bharat Warrier, MS, Shelli Graham, PhD, Brian Bernick, MD, and Sebastian Mirkin, MD The softgel vaginal 17 β -estradiol (E2) insert, a treatment option for women with moderate to severe dyspareunia due to menopausal vulvar and vaginal atrophy, was shown to be rapidly dissolving in vitro and have similar E2 pharmacokinetic parameters regardless of body position after dosing in vivo.

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Does preventive oophorectomy increase the risk of depression in *BRCA* **mutation carriers?** Joanne Kotsopoulos, PhD, Jacek Gronwald, MD, Jan Lubinski, MD, Jeanna McCuaig, MS, Henry T. Lynch, MD, Susan L. Neuhausen, PhD, William D. Foulkes, MD, Jeffrey N. Weitzel, MD, Leigha Senter, MS, Nadine Tung, MD, Charis Eng, MD, PhD, Beth Karlan, MD, Ping Sun, PhD, Steven A. Narod, MD, and the Hereditary Breast Cancer Clinical Study Group *In this prospective study of women with a* BRCA1 *or* BRCA2 *mutation, no increase in the initiation of antidepressant use following preventive oophorectomy was observed.*

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Ultralow 0.03 mg vaginal estriol in postmenopausal women who underwent surgical treatment for stress urinary incontinence: effects on quality of life and sexual function Salvatore Caruso, MD, Antonio Cianci, MD, Giuseppe Sarpietro, MD,

Maria Grazia Matarazzo, MD, Marco Panella, MD, and Stefano Cianci, MD Ultra-low-dose topical vaginal ovules containing 0.03 mg estriol administrated before and after transobturator tape placement could improve the vaginal epithelium maturation of postmenopausal women affected by stress urinary incontinence. Moreover, vaginal estriol ovules also improved the surgical outcome investigated by SF-36 and Female Sexual Function Index.

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Cerebral and peripheral vascular differences between pre- and postmenopausal women Áine Brislane, PhD, David A. Low, PhD, Sophie E. Carter, PhD, Sophie M. Holder, MPhil, Helen Jones, PhD, and Nicola D. Hopkins, PhD

Preliminary data indicates that femoral artery function and carotid artery structure may be potentially impaired in early-post-menopause compared with late-pre-menopause. These findings suggest that conduit arteries susceptible to atherosclerosis may be important targets for lifestyle intervention in early menopause.

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Association of circulating Progesterone Receptor Membrane Component-1 (PGRMC1) with breast tumor characteristics and comparison with known tumor markers Xiangyan Ruan, MD, PhD, Guiju Cai, MD, Yun Wei, PhD, Muqing Gu, MD, Ying Zhang, MD, PhD, Yue Zhao, MD, PhD, and Alfred O. Mueck, MD, PhD, PH Progesterone receptor membrane component-1 (PGRMC1) levels are positively associated with breast tumor characteristics known to predict a worse diagnosis. Therefore, PGRMC1 may be valuable as a new tumor marker, superior to known tumor markers such as CEA, CA125 and CA153.

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Impact of evening primrose oil consumption on psychological symptoms of postmenopausal women: a randomized double-blinded placebo-controlled clinical trial Sevedeh Nazanin Sharif, MD, and Fatemeh Darsareh. PhD

Consumption of daily 1000 mg evening primrose oil for 8 weeks could be beneficial to alleviate psychological symptoms, such as depressive mood, irritability, anxiety, and physical and mental exhaustion during menopause.

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Twelve weeks of resistance band exercise training improves age-associated hormonal decline, blood pressure, and body composition in postmenopausal women with stage 1 hypertension: a randomized clinical trial

Won-Mok Son, PhD, Elizabeth J. Pekas, MS, and Song-Young Park, PhD Resistance band training is capable of restoring the age-associated hormonal decline in postmenopausal women. This exercise modality has beneficial effects on improving blood pressure and body composition, and it may be useful as a therapeutic intervention for reducing the risks of cardiovascular disease in postmenopausal women with stage 1 hypertension.

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Structural equation model analysis for the evaluation of factors associated with overweight and obesity in menopausal women in RaNCD cohort study

Mitra Darbandi, MSc, Farid Najafi, PhD, Yahya Pasdar, PhD, and Shahab Rezaeian, PhD The direct and indirect effects risk factors associated with overweight and obesity in menopausal women differ from premenopausal women. Physical activity and healthy dietary pattern had a mediator impact in the two study groups.

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Duration of reproductive years and time since menopause were associated with metabolic syndrome in postmenopausal parous women of Chinese ancestry

Weihui Yu, MD, PhD, Xiang Hu, MD, Lijuan Yang, MM, Wei Pan, MM, Huihui Deng, MM, Xiong Chen, PhD, Qi Zhou, MM, Shuoping Chen, MM, Qiya Si, BM, Xueqin Chen, BM, Qianqian Li, BM, Feixia Shen, MM, and Xuejiang Gu, PhD

The results of this study showed that longer duration of reproductive years and time since menopause were associated with higher prevalence of metabolic syndrome in postmenopausal parous women from Southeast China.

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Genetic polymorphisms in collagen-related genes are associated with pelvic organ prolapse Lei Li, PhD, Zhijing Sun, MD, Juan Chen, MD, PhD, Ye Zhang, PhD, Honghui Shi, MD, and Lan Zhu, MD

Collagen-related gene (COL14A1, COL5A1, COL4A2, COL3A1, COL1A1 and COL18A1) polymorphisms are associated with pelvic organ prolapse in Chinese women. The results of this study provide new evidence for further investigation for the pathophysiology of prolapse.

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Association between physical activity, cardiorespiratory fitness, and body composition with menopausal symptoms in early postmenopausal women

Fatemeh Morardpour, MSC, Maryam Koushkie Jahromi, PhD, Mahboobeh Fooladchang, PhD, Rasoul Rezaei, PhD, and Mohammad Reza Sayar Khorasani, MSC

Sitting time and VO2max were the most important predictors of total symptoms of menopause by priority, sitting was the predictor of somatic symptoms and VO2max was the predictor of urogenital symptoms of menopause.

Clinical Corner Invited Review

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Uterine fibroids in menopause and perimenopause

Mara Ulin, MD, Mohamed Ali, BPharm, MSc, Zunir Tayyeb Chaudhry, MD, Ayman Al-Hendy, MD, PhD, and Qiwei Yang, PhD Uterine fibroids (UFs) are benign tumors that arise from a single genetically altered mesenchymal stem cell under the influence of gonadal hormones. UFs are the most common benign gynecologic tumors in premenopausal women worldwide.

Review Article

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Hormonal management of menopausal symptoms in women with a history of gynecologic malignancy

Benjamin S. Harris, MD, MPH, Katherine C. Bishop, MD, Jeffrey A. Kuller, MD, Anne C. Ford, MD, Lisa C. Muasher, MD, MPH, Sarah E. Cantrell, MLIS, and Thomas M. Price, MD

The risks of hormone therapy should be assessed on an individual basis, with consideration of age, type of hormone therapy, dose, duration of use, regimen, route, and prior exposure. Systemic hormone therapy is not recommended in breast cancer survivors while vaginal low-dose estrogen appears safe.

Letters to the Editor

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