## Contents

### Editorials

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>335</td>
<td>Genitourinary syndrome of menopause: in their own words—development of a new patient-reported outcome measure</td>
<td>Juliana M. Kling, MD, MPH, and Stephanie S. Faubion, MD</td>
</tr>
<tr>
<td>337</td>
<td>Yoga and acupuncture versus “sham” treatments for menopausal hot flashes: how do they compare?</td>
<td>Amanda McGuire, PhD, and Debra Anderson, PhD</td>
</tr>
<tr>
<td>338</td>
<td>Women harmed by vaginal laser for treatment of GSM—the latest casualties of fear and confusion surrounding hormone therapy</td>
<td>Andrew M. Kaunitz, MD, FACOG, NCMP, JoAnn V. Pinkerton, MD, FACOG, NCMP, and JoAnn E. Manson, MD</td>
</tr>
</tbody>
</table>

### Original Articles

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>341</td>
<td>Women’s experience of vulvovaginal symptoms associated with menopause</td>
<td>Jan L. Shifren, MD, Rebekah Zincavage, PhD, Ellen L. Cho, BA, Ashley Magnavita, MPH, David J. Portman, MD, Michael L. Krychman, MD, James A. Simon, MD, Sheryl A. Kingsberg, PhD, and Raymond C. Rosen, PhD</td>
</tr>
</tbody>
</table>

*This report describes women’s experience of menopausal urogenital symptoms as ascertained during the development of a novel patient-reported outcome measure to assess the genitourinary syndrome of menopause.*

(continued)
350
A pooled analysis of three studies of nonpharmacological interventions for menopausal hot flashes
Nancy E. Avis, PhD, Beverly J. Levine, PhD, Suzanne Danhauer, PhD, and Remy R. Coeytaux, MD, PhD
Acupuncture, yoga, and health and wellness education classes all demonstrated statistically similar effectiveness in reduction of hot flash frequency compared to controls.

357
Sleep disturbance in women who undergo surgical menopause compared with women who experience natural menopause
Na Young Cho, BA, Soriul Kim, PhD, Sara Nowakowski, PhD, Chol Shin, MD, PhD, and Sooyeon Suh, PhD
Menopause can be both physically and psychologically challenging, but women who undergo surgical menopause experience worse sleep quality compared to women who experience natural menopause, and may benefit from behavioral intervention.

365
Dietary patterns and their association with menopausal symptoms: a cross-sectional study
Mahshid Soleymani, MS, Fereydoun Siassi, PhD, Mostafa Qorbani, PhD, Shahla Khorsavi, PhD, Zahra Aslany, MS, Maryam Abshirini, MS, Ghalz Zolfaghari, BS, and Gity Sotoudeh, PhD
The current study demonstrated that there is an inverse association between the vegetable and fruit dietary pattern and menopausal symptoms. In contrast, the mayonnaise, liquid oils, sweets, and desserts (MLSD) as well as the solid fats and snacks (SFS) dietary patterns were correlated to an increased risk of these symptoms.

373
Decreasing menopausal symptoms of Asian American breast cancer survivors through a technology-based information and coaching/support program
Eun-Ok Im, PhD, MPH, FAAN, Sangmi Kim, PhD, MPH, Chiyoungh Lee, MSN, Eunice Chee, BSE, Jun J. Mao, MD, MSCE, and Wonshik Chee, PhD
This study tested the efficacy of a technology-based information and coaching/support program on menopausal symptoms of Asian American breast cancer survivors. The program was effective in alleviating the women’s menopausal symptoms.

383
Tissue-selective estrogen complex for women who experience breast discomfort or vaginal bleeding when on hormone therapy
Sung Eun Kim, MD, Dong-Yun Lee, MD, PhD, and DooSeok Choi, MD
This study suggests that tissue-selective estrogen complex is a good option for women who have breast discomfort or persistent bleeding during other hormone therapy when taking into account the differences in estrogen dose.
Age at natural menopause and life expectancy with and without type 2 diabetes
Eralda Asllanaj, MD, MSc, DSc, Arjola Bano, MD, MSc, DSc, Marija Glisic, MD, MSc, Loes Jaspers, MD, PhD, Mohammad Arfan Ikram, MD, PhD, Joop S.E. Laven, MD, PhD, Henry Völzke, MD, PhD, Taulant Muka, MD, PhD, and Oscar H. Franco, MD, PhD
Women who experience early menopause live shorter lives and spend fewer years without diabetes than women who experience normal or late menopause. These findings underscore the value of age at natural menopause as a potential marker for predicting future health disease risk and mortality.

Clinical application and mid-term results of modified vaginal closure: pelvic symptoms, quality of life, satisfaction, and regret rate
Ningyi Jia, MD, Weihong Zhao, BS, Baojun Yang, MD, Yun Xu, MD, Jinghua Li, MD, PhD, and Limin Feng, MD, PhD
Modified vaginal closure had a positive impact on pelvic symptoms, a relatively high satisfaction rate and a low regret rate, and it improved the quality of life.

The Female Sexual Function Index: reliability and validity in Spanish postmenopausal women
Isabel Pérez-Herrezuels, MD, Fidel Hita-Contreras, MD, PhD, Antonio Martinez-Amat, PhD, Agustín Aíbar-Almazán, PhD, David Cruz-Diaz, PhD, Rosemary Wangensteen, PhD, Alexander Aichaladabaso Ochoa, PhD, and Esther Díaz-Mohedo, PhD
The Spanish version of the Female Sexual Function Index has shown good internal consistency, test-retest reliability, and construct, concurrent and divergent validity in postmenopausal women. It is able to discriminate between women with and without female sexual dysfunctions among Spanish postmenopausal women.

The association of miR-25T>C, miR-32C>A, miR-125C>T, and miR-222G>T polymorphisms with a risk of primary ovarian insufficiency in Korean women
Sung Hwan Cho, PhD, Young Ran Kim, MD, PhD, Ji Hyang Kim, MD, PhD, Hui Jeong An, BS, Jung Oh Kim, MS, Jung Jae Ko, PhD, Woo Sik Lee, MD, PhD, and Nam Keun Kim, PhD
Our findings suggest that polymorphisms of miR-25T>C, miR-32C>A, miR-125C>T, and miR-222G>T and putative gene–gene interaction between these four miRNAs may be involved in primary ovarian insufficiency development in Korean women.

Long-term weight loss maintenance, sex steroid hormones, and sex hormone-binding globulin
Catherine Duggan, PhD, Jean de Dieu Tapsoba, PhD, Frank Stanczyk, PhD, Ching-Yun Wang, PhD, Karen Foster Schubert, MD, and Anne McTiernan, MD, PhD
Sustained weight loss results in reductions in free estradiol and testosterone and increases in sex hormone binding globulin 18 months post-intervention.
Case Report

423
Rethinking the techno vagina: a case series of patient complications following vaginal laser treatment for atrophy
Catherine Gordon, MD, Savanah Gonzales, and Michael L. Krychman, MD
Lasers are currently being used for genitourinary syndrome of menopause but reports of complications are rare in the literature. A case study of 4 laser related complications is reported.

Clinical Corner

NAMS Practice Pearl

428
Hypertension in menopausal women: the effect and role of estrogen
Kajenny Srivaratharajah, MD, MSc, FRCP, and Beth L. Abramson, MD, MSc, FRCP, FACC
States of estrogen imbalance or deprivation are associated with higher risks of hypertension and cardiovascular disease in women; however, the effects of estrogen on hypertension are not completely understood. Improved screening for hypertension, especially in specific groups of younger women at higher risk, is recommended.

Review Article

431
A systematic review of the efficacy and safety of vaginal estrogen products for the treatment of genitourinary syndrome of menopause
Colton Bielh, BS, Olivia Plotsker, and Sebastian Mirkin, MD
This review supports the use of commercially available vaginal estrogen therapies as an effective and safe first line therapy for the treatment of moderate to severe genitourinary syndrome of menopause.