

Menopause

The Journal of The North American Menopause Society

VOLUME 27, ISSUE 6 2020

SDC

Supplemental Digital Content is available.

Contents

NAMS Commentary

611

Workshop on normal reference ranges for estradiol in postmenopausal women: commentary from The North American Menopause Society on low-dose vaginal estrogen therapy labeling

JoAnn V. Pinkerton, MD, FACOG, NCMP, James H. Liu, MD, NCMP, Nanette F. Santoro, MD, Rebecca C. Thurston, PhD, Hadine Joffe, MD, MSc, Stephanie S. Faubion, MD, MBA, FACP, NCMP, IF, and JoAnn E. Manson, MD, DrPH, FACP, NCMP

Symposium Report

614



Workshop on normal reference ranges for estradiol in postmenopausal women, September 2019, Chicago, Illinois

Richard J. Santen, MD, JoAnn V. Pinkerton, MD, FACOG, NCMP, and James H. Liu, MD, NCMP, Alvin M. Matsumoto, MD, FACP, Roger A. Lobo, MD, FACOG, Susan R. Davis, MBBS, FRACP, PhD, FAHMS, and James A. Simon, MD, CCD, NCMP, IF, FACOG

The Workshop on Normal Ranges for Estradiol in Postmenopausal Women was organized to review existing analytical methodologies for measuring estradiol in postmenopausal women and to assess whether the existing data and study cohorts were suitable in establishing normal postmenopause ranges. The anticipated outcome of the workshop was to develop recommendations for establishing normal ranges generated with a standardized and certified assay that could be adopted by clinical and research communities.

Editorials

625

Adding up the healthcare costs when estrogen the rapy is avoided after hysterectomy Philip M. Sarrel, MD

(continued)

Menopause: The Journal of The North American Menopause Society (ISSN 1072-3714) is published monthly for The North American Menopause Society by Wolters Kluwer Health, Inc. Business and production offices are located at Two Commerce Square, 2001 Market St., Philadelphia, PA 19103. All rights reserved. Copyright © 2020 by The North American Menopause Society.

POSTMASTER: Send address changes to *Menopause: The Journal of The North American Menopause Society*, P.O. Box 1610, Hagerstown, MD 21740.

628

Is metabolically healthy obesity really healthy?

Sybil L. Crawford, PhD

630

Menopause and society: the association of educational level, social status, and financial status with positive versus negative perceptions about menopause Annekathryn Goodman, MD, MPH

Original Studies

632



The Women's Health Initiative Estrogen-alone Trial had differential disease and medical expenditure consequences across age groups

Macarius M. Donneyong, PhD, MPH, Teng-Jen Chang, MSc, PhD, Joshua A. Roth, PhD, MHA, McKenna Guilds, BS, Daniel Ankrah, PhD, MPH, Mehdi Najafzadeh, PhD, MSc, MA, Wendy Y. Xu, PhD, Rowan T. Chlebowski, MD, PhD, Karen Margolis, MD, MPH, and JoAnn E. Manson, MD, DrPH

This analysis examined the impact of the Women's Health Initiative (WHI) Hormone Therapy (HT) trials on the utilization of estrogen-alone among women who had undergone hysterectomy in the US. The data show that the WHI estrogen alone (ET) results were extrapolated across postmenopausal women of all ages and the subsequent decline in ET utilization had adverse effects in younger women but favorable effects in older women.

640



Incidence of diabetes according to metabolically healthy or unhealthy normal weight or overweight/obesity in postmenopausal women: the Women's Health Initiative

Amber R. Cordola Hsu, PhD, MPH, Susan L. Ames, PhD, MA, Bin Xie, PhD, MS, Darleen V. Peterson, PhD, MPH, MA, Lorena Garcia, DrPH, MPH, Scott B. Going, PhD, Lawrence S. Phillips, MD, JoAnn E. Manson, MD, DrPH, Hoda Anton-Culver, PhD, and Nathan D. Wong, PhD, MPH

Among postmenopausal women, metabolically unhealthy normal weight and metabolically healthy overweight/obese confer an approximate doubling in the risk and metabolically unhealthy overweight/obese more than a four-fold increased risk for developing diabetes.

648



Knowledge and attitudes associated with menopause among women aged 45 to 60 years: a pilot study among rural and urban women in Bangladesh

Md. Golam Dostogir Harun, MPH, MSS, Umme Salema, MPH, MSS, Aluddin Chowdhury ABM, PhD, MSS, Md. Imdadul Haque, MPH, MSS, Mohammad Abdullah Heel Kafi, MSc, Md. Shahajahan, PhD, MSc, and Sabrina Sharmin, MPH, MSS

Public health messaging to increase awareness and knowledge about menopause should be undertaken to overcome stigma and shame associated with menopause in Bangladesh.

658



Family history of premature myocardial infarction modifies the associations between bilateral oophorectomy and cardiovascular disease mortality in a US national cohort of postmenopausal women

Duke Appiah, PhD, MPH, Chike C. Nwabuo, MD, MPH, Damilola R. Owoade, MPH, Jaffer Samad, MPH, Imo Ebong, MD, MS, and Stephen J. Winters, MD

This study showed that the risk of heart disease mortality, cardiovascular disease mortality, or all-cause mortality in women with bilateral oophorectomy was modified by a family history of premature myocardial infarction. This observed risk was higher in women undergoing bilateral oophorectomy at younger ages (< 45 years) than those who had this procedure at older ages.

668

Coexistence of metabolic syndrome and osteopenia associated with social inequalities and unhealthy lifestyle among postmenopausal women in South Korea: the 2008 to 2011 Korea National Health and Nutritional Examination Survey (KNHANES)

Hansongyi Lee, PhD, Jieun Kim, PhD, and Hyunjung Lim, PhD *Social inequities might contribute to Korean women having metabolic syndrome and osteopenia.*

679



Bacterial vaginosis diagnosis and treatment in postmenopausal women: a survey of clinician practices

Katrina S. Mark, MD, Beatriz Tenorio, MD, Christina A. Stennett, MPH, Khalil G. Ghanem, MD, PhD, and Rebecca M. Brotman, PhD, MPH

Methods used to evaluate postmenopausal women with vaginal symptoms vary. Future studies of post-menopausal women that differentiate diagnostic criteria between bacterial vaginosis (BV) and genitourinary syndrome of menopause and validate commercial molecular testing for BV in women over age 50 are needed.

684

Do trends of adiposity and metabolic parameters vary in women with different ovarian reserve status? A population-based cohort study

Mina Amiri, PhD, Fahimeh Ramezani Tehrani, MD, Maryam Rahmati, PhD,

Faezeh Firouzi, MD, and Feriedoun Azizi, MD

Women with lower ovarian reserve do not experience different over time trends of adiposity and glucose metabolism parameters during their reproductive life span.

693

Baseline estrogen levels in postmenopausal women participating in the MAP.3 breast cancer chemoprevention trial

Harriet Richardson, PhD, Vikki Ho, PhD, Romain Pasquet, PhD, Ravinder J. Singh, PhD, Matthew P. Goetz, MD, Dongsheng Tu, PhD, Paul E. Goss, MD, PhD, and James N. Ingle, MD, on behalf of the MAP.3 Investigators

There was large inter-individual variability observed for estrone and estradiol that varied significantly by participant characteristics, but with small absolute differences except in the case of BMI.

701

Cervical cancer survivors' attitudes and understanding of menopause and hormone therapy Katherine Cotangco, DO, Quetzal A. Class, PhD, Timothy P. Johnson, PhD, and Rajul Kothari, MD

The data indicate that women are experiencing climacteric symptoms but are overall unmotivated to address symptoms using hormone therapy (HT). Factors such as symptom severity, fear of side effects, income level, or education level were not associated with acceptability of HT for premature menopause.

706

Lung cancer aggressiveness in an intermittent hypoxia murine model of postmenopausal sleep apnea

Marta Torres, PhD, Miguel Ángel Martinez-Garcia, MD, PhD, Francisco Campos-Rodriguez, MD, PhD, David Gozal, MD, PhD, Josep M. Montserrat, MD, PhD, Daniel Navajas, PhD, Ramon Farré, PhD, and Isaac Almendros, PhD

Intermittent hypoxia mimicking obstructive sleep apnea and bilateral gonadectomy, as a menopause model, emerge as independent contributors promoting lung cancer malignancy through alterations in the immune response.

714

Investigation of eNOS gene polymorphism exposes a genetic association between endothelial dysfunction and osteoporosis in postmenopausal women

Puneetpal Singh, MSc, PhD, Monica Singh, MSc, PhD, Srishti Valecha, MSc, Rubanpal Khinda, MSc, Nitin Kumar, MSc, Sarabjit Mastana, MSc, PhD, Surinderpal Singh, MBBS, MD, Pawan K. Juneja, MBBS, MD, and Taranpal Kaur, MBBS, MD A susceptibility haplotype CTAAAT within the eNOS gene has been observed which is associated with almost double the risk of endothelial dysfunction associated osteoporosis compared to non-carriers. The study revealed that the genetic relationship of endothelial dysfunction and osteoporosis exists in postmenopausal osteoporotic women of Punjab, India.

Personal Perspective

722

MsFLASH network vaginal health trial: absence of evidence is NOT evidence of absence Vanessa A. Lukas, BA, and James A. Simon, MD

Conclusions from the MsFLASH Network Vaginal Health Trial recently reported are contrary to prior robust clinical trials that have evaluated hormone therapy for dyspareunia and vaginal dryness in postmenopausal women, and may lead to new barriers for women to receive prescription coverage for vaginal therapies when over-the-counter products are not effective.

Wolters Kluwer Health, Inc., and The North American Menopause Society cannot be held responsible for errors or for any consequences arising from the use of the information contained in this journal. All advertising material published in this journal is expected to conform to regulatory and medical standards. The appearance of advertising in this publication does not constitute a guarantee or endorsement by The North American Menopause Society or Wolters Kluwer Health, Inc., of the quality or value of such a product or service or any claims made by its marketer.

Permissions and photocopying: For permission and/or rights to use content for which the copyright holder is Wolters Kluwer or the society we have partnered with the Copyright Clearance Center to provide permissions for our products through their RightsLink service, please go to the journal's website and after clicking on the relevant article, click on the "Get Content & Permissions" link under the "Article Tools" box that appears on the right side of the page. For questions about the Rightslink service, e-mail customercare@copyright.com or call 877-622-5543 (U.S. Only) or 978-777-9929. Permissions FAQs and information on author's permission requests are available at https://shop.lww.com/journal-permission. For additional permission inquiries, please contact Permissions@LWW.com. For translation rights requests, contact TranslationRights@wolterskluwer.com. For license to republish and distribute requests, contact HealthLicensing@

For translation rights requests, contact TranslationRights@wolterskluwer.com. For license to republish and distribute requests, contact HealthLicensing@wolterskluwer.com. For special projects and reprints (U.S./Canada), contact Alan Moore at Alan.Moore@wolterskluwer.com or reprintsolutions@wolterskluwer.com. For special projects and reprints (non-U.S./Canada), contact Avia Potashnik at Avia.Potashnik@wolterskluwer.com or International-Reprints@wolterskluwer.com.

Menopause: The Journal of The North American Menopause Society is a registered trademark of The North American Menopause Society.

Menopause: The Journal of The North American Menopause Society (ISSN 1072-3714) is published monthly by Wolters Kluwer Health, Inc., at 14700 Citicorp Drive, Bldg 3, Hagerstown, MD 21742. Business offices are located at Two Commerce Square, 2001 Market St., Philadelphia, PA 19103. Annual subscription rate: \$610.