Enhancing the Understanding and Treatment of Psychiatric and Menopausal Symptoms in Women…

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Effect of nighttime vasomotor symptoms on polysomnographic (PSG)-measured wake after sleep onset (WASO). Data are shown by hot flash group (frequent and persistent, n=10; infrequent and persistent, n=10; and persistent, n=9). P values derive from linear regression models of the effect of nighttime VMS on WASO time adjusting for baseline levels of WASO and sleep period time.

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Neuropsychiatrists in the Division of Neuropsychiatry at Brigham and Women’s Hospital (BWH), led by Director of Neuropsychiatry Laura Safar, MD, are collaborating closely with cognitive-behavioral neurologists, neuropsychologists, social workers, and many others at BWH, to address the spectrum of medical, emotional, behavioral, and social aspects of many neurologic illnesses.

“By working as an integral part of the teams that are dedicated to treating specific neurologic illnesses, we can better address and understand the nature of the neuropsychiatric manifestations that are often seen in these illnesses to improve care for patients,” said Dr. Safar.

Two areas of active research in the Division include Alzheimer’s disease (AD) and multiple sclerosis.
Examining the Medical and Psychiatric Interface of Neurologic Illnesses... continued from cover

A separate upcoming pilot study is examining the underlying neural circuitry of behavioral abnormalities in AD and whether transcranial magnetic stimulation can be utilized to improve performance on relevant behavioral measures. Neuropsychiatrist Shreya Raj, MD, is collaborating with Principal Investigator Arielle D. Stanford, MD, Director of the Brain Stimulation Program in Psychiatry, David A. Silbersweig, MD, Chair of the Department of Psychiatry, neurologist Kirk Daffner, Chief of the Center for Brain/Mind Medicine, and cognitive behavioral neurologist Gad Marshall, MD, on this study.

Patients with AD and other cognitive disorders receive expert, interdisciplinary clinical care by neuropsychiatrists, behavioral neurologists, neuropsychologists, and social workers at the BWH Center for Brain/Mind Medicine.

Multiple Sclerosis
Dr. Safar works with a range of specialists in the Partners Multiple Sclerosis (MS) Center at BWH, directed by Howard L. Weiner, MD, including neurologists, psychologists David Rintell, EdD, neuropsychologist Lindsay Barker, PhD, and social worker Audrey Cecil, LICSW, to provide integrated care for patients with MS. She is developing current research studies in key aspects of neuropsychiatric manifestations in MS, including:

- Characterization of syndromes and the study of the variability often seen among the many neuropsychiatric symptoms that are highly prevalent in MS. Examples include mixed mood syndromes and mood dysregulation with increased liability;
- Study of the multifactorial pathophysiology of the neuropsychiatric manifestations in MS, including psychosocial components and relationship of mood syndromes to specific types of lesions and lesion localization;
- Design of services to help improve quality, efficacy, and efficiency of patient care. This initiative includes development of a systematic neuropsychiatric assessment and evaluation of neuropsychiatric symptoms, to be implemented as part of the standard of care for patients with MS of the standard of care for patients with MS.

Laura Safar, MD
Director, Division of Neuropsychiatry
Department of Psychiatry

Survival functions predicted by the Cox model for time to transition in diagnosis for selected illustrative strata of baseline diagnosis, and one standard deviation above and below the mean for the memory factor and for the affective factor.

Figure 1

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Figure 2

Hedine Joffe, MD, MSc, Chief of the Division of Women’s Mental Health and Director of the Women’s Hormones and Aging Research Program in the Department of Psychiatry, is leading research to enhance the understanding of the psychiatric aspects of menopause and to optimize treatment of menopausal symptoms.

“Menopause is a period of increased risk of depression in women,” said Dr. Joffe. “Sub-threshold depressive symptoms clearly increase during menopause transition, and there is a particular susceptibility to recurrence of clinical depression. We also have some evidence of increased risk of first episode of major depression during this time.”

Insomnia and Depression
Dr. Joffe led a recent study of women with depressive disorders, hot flashes, and sleep disturbance, who were randomly assisted to estradiol, zolpidem, or placebo for eight weeks. The study determined that changes in estradiol and sleep quality, rather than hot flashes, mediated depression during the menopause transition (J Clin Endocrinol Metab. 2011 Jul;96(7):E1044-54).

Menopausal Symptoms in Women

Letter from the Chair: Transcending Traditional Boundaries

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Among the largest in the world, our team of neuropsychiatrists is addressing the spectrum of medical, emotional, behavioral, and social aspects of neurologic illness. Our research is enhancing our understanding of the pathophysiology of neuropsychiatric disorders to provide the foundation for new biomarkers, diagnostic approaches, and more targeted therapeutic options. Advanced imaging is enabling us to more precisely pinpoint the local mechanisms of disease and examine the basis for both psychiatric manifestations of neurologic disorders and neural underpinnings of psychiatric disorders. These endeavors are particularly valuable in improving care for patients with neuropsychiatric issues that are not well defined.

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David A. Silbersweig, MD
Chair, Department of Psychiatry
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The network’s first study showed that the use of escitalopram, low dose estrogen, and exercise. Compared with placebo resulted in fewer and less severe menopausal hot flashes (JAMA. 2011 Jan19;305(3):267-74). Another trial demonstrated lack of benefit of three behavioral/complementary interventions, including aerobic exercise, yoga, and Omega-3, in reducing hot flashes. A third study that randomized peri- and postmenopausal women with bothersome hot flashes to low-dose estrogen or serotonin-norepinephrine reuptake inhibitor (SNRI) or placebo reported on the beneficial effect of these first-line hormonal and non-hormonal treatments for hot flashes and was presented at the North American Menopause Society Annual meeting in October 2013.

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Alzheimer’s Research and Treatment

Nancy Donovan, MD, is a geriatric psychiatrist in the Center for Brain/Mind Medicine at BWH and a co-investigator in clinical trials at the Center for Alzheimer Research and Treatment (CART) at BWH, integrating activities of these two centers. Dr. Donovan’s research concerns the presentation and pathophysiology of neuropsychiatric symptoms in cognitive decline and dementia, with a specific interest in identifying changes in preclinical and early symptomatic stages of AD.

At the Alzheimer’s Association International Conference in July 2013, Dr. Donovan presented results of a study that investigated subjective cognitive concerns and affective symptoms, including depression, as predictors of more rapid progression to mild cognitive impairment and dementia (see Figures 1 and 2, page 2). Her recently published work has examined neuropsychiatric symptoms of apathy and hallucinations in relation to AD biomarkers and as predictors of accelerated functional decline (The American Journal of Geriatric Psychiatry, 2013 Jul 24). Dr. Donovan is currently studying the relations of loneliness and social network to cognition and biomarkers of AD as part of the Harvard Aging Brain Study, led by Principal Investigator Reisa A. Sperling, MD, CART Director.

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Information and Access

For more information or a consultation, please call us at 1-800-MD-TO-BWH or email bwhreferrals@partners.org.

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BRIGHAM AND WOMEN’S HOSPITAL

BWH RESEARCH UPDATE

WINTER 2014

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