Ovarian Suppression Linked to More Migraines

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BOCA RATON, FLA. – Ovarian suppression to treat endometriosis might cause a woman to experience significantly more migraines, and more sleep disturbances, numbness, joint pain, hot flashes, and heart palpitations, a study showed. Some women also experience more depression.

Migraines affect more than three times as many women as men in the United States. Decreases in hormone levels and sex steroids in the late luteal phase of the menstrual period, during the postpartum period, and during perimenopause, for example, can increase a woman's susceptibility to migraines. Researchers noted that treatments that lower a woman's estrogen levels to tackle endometriosis might, at the same time, increase her risk for more severe and more frequent migraines and depressive symptoms.

Dr. Julia K. Warnock said that gonadotropin-releasing hormone (GnRH) agonists will decrease estrogen and increase the risk of headaches, including migraines, and increase the risk for depressive symptoms. Some women are more sensitive to mood-related hormonal changes, said Dr. Warnock, professor of psychiatry and director of clinical research at the University of Oklahoma Health Science Center in Tulsa.

"As the patient transitions through the reproductive cycle, a number of [her] associated mood symptoms … are influenced by fluctuations in estrogen," said study coauthor Dr. J. Clark Bundren, an ob.gyn. in private practice in Tulsa. "Proper supplementation of low-dose estradiol in this population can improve migraine headache, anxiety, and depression," Dr. Bundren said.

Dr. Warnock and colleagues evaluated baseline hormone levels, depression, and physical symptoms for 56 women with endometriosis. They completed the MENSI (Menopause Symptom Index) and the HAM-D (Hamilton Rating Scale for Depression). They were then treated with 3.75 mg GnRH agonist via intramuscular injection daily for 28 days, and reevaluated at 1 month, 2 months, and 5 months.

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A significant increase in the frequency of headaches was observed at each follow-up, according to an item level chi square analysis of MENSI scores, compared with baseline. Total MENSI scores likewise significantly increased at 1, 3, and 5 months, according to a t-test of dependent samples. Similarly, depressive symptoms significantly increased, compared with baseline, at months 1, 3, and 5, as reflected by the percentages of women who scored greater than 10 on the HAM-D.

"Psychiatrists should consider hormonal fluctuations in the treatment of women [with depression]," Dr. Warnock said, because decreases in estrogen levels can predispose some to worsening depression. Combination hormone and antidepressant treatment can have synergistic benefits. "Together is better." This dual approach also can mean lower doses of antidepressants and therefore, lower risk of associated adverse events.

As for the risks associated with hormone therapy, Dr. Bundren said, "Women on estrogen alone have a decreased risk of breast cancer, but it's not a simple message."

"It matters which estrogen, which patient, and how it's delivered," Dr. Warnock said. "In general, transdermal is better than oral. For women who are suffering, it's about their quality of life."

The study was limited by patient self-report of headache frequency on the MENSI, and a lack of assessment of progesterone or its metabolites.

The study was unfunded. Dr. Warnock and Dr. Bundren said they had no relevant disclosures. ■