Ultrasound-Estradiol Aids Some Over Others

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 MONTREAL — Postmenopausal women with extremely low levels of bioavailable estradiol may benefit most from the bone-building effects of ultralow-dose hormone therapy, according to a study presented at the annual meeting of the International Bone and Mineral Society.

 It remains unclear, however, whether these women are also more vulnerable to the negative effects of hormone therapy. Although estrogen therapy has been shown to suppress bone turnover in postmenopausal women, the Women’s Health Initiative study revealed in 2005 that it may increase cardiovascular risk.

 Experts are exploring the possibility that a dose of estrogen exists, at least for some women, that is high enough to improve bone parameters but too low to affect cardiovascular risk.

 Dr. Alison Huang, of the University of California, San Francisco, and colleagues explored whether an ultralow dose of estrogen—only 0.014 mg/day delivered transdermally—could help postmenopausal women with very low or even undetectable estradiol levels. This group has a lower bone mineral density (BMD), increased bone turnover, and are at an increased risk for hip and vertebral fractures.

 For the trial, 417 postmenopausal women were randomized to a 0.014 mg/day transdermal estradiol patch or placebo for 2 years. Bioavailable estradiol levels were calculated as the ratio of total estradiol to sex hormone–binding globulin.

 Women in the lowest quintile of bioavailable estradiol levels have been shown to have the most to gain from estradiol therapy—those with very low baseline bioavailable estradiol levels—may also be the most vulnerable to the effects of hormone therapy on cardiovascular health.

 Antiresorptives

 Cut Low-Trauma Fracture Risk

 MONTREAL — Antiresorptive drugs reduce the risk of low-trauma, nonvertebral fractures in women over 50, and women with a prevalent fracture or frank osteoporosis have most to gain from these drugs, according to a study presented at the annual meeting of the International Bone and Mineral Society.

 Dr. Suzanne Morin, of McGill University, Montreal, and colleagues obtained data from the Canadian Multicentre Osteoporosis Study (CaMos), in which more than 6,000 women over age 50 were randomly selected from across Canada. Demographics, medical history, and bone mineral density (BMD) were collected.

 The researchers conducted a case-control analysis of the data. Women with self-reported incident low-trauma fractures, excluding fractures of the head, hands, feet or vertebral, were matched with controls according to time in study, age, prevalent osteoporosis, prevalent vertebral deformity, prior clinical low-trauma fracture, and baseline BMD; 477 cases and 1,377 controls were included.

 Among cases, 37% were current users of antiresorptive agents (estrogen, bisphosphonates, selective estrogen receptor modulators [SERMs], and calcitonin) versus 41% of controls. Antiresorptive drug use was tied to an adjusted odds ratio of 0.68 for risk of a low-trauma fracture. Among those with both prevalent fracture or a BMD indicative of osteoporosis, OR was 0.58, versus 0.88 for women with neither of these risk factors.

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