Secondary Causes of Bone Loss Often Missed

Ob.gyns., other primary care doctors less likely to follow up on problematic scans.

BY ELIZABETH MECHCATIE
Senior Writer

WASHINGTON — Primary care physicians are less likely than specialists to initiate a work-up for secondary causes of bone loss in patients with scans indicating low bone density, despite a recommendation to do so.

That finding emerged from a study presented in poster form during the annual meeting of the North American Menopause Society.

Some patients with scans indicating osteoporosis were premenopausal women who started treatment with a bisphosphonate after their physicians received the scan results. Eventually, however, these patients were diagnosed with vitamin D deficiency, according to Andrea Sikon, M.D., of the Cleveland Clinic Women's Health Center, and her associates.

The study involved a review of 1,114 consecutive dual energy x-ray absorptiometry (DXA) scans performed at the center from July 2002 to August 2003. Of these scans, 712 (64%) were considered indicative of osteopenia (a T score ranging from –1.1 to –2.4), or of osteoporosis (a T score of –2.5 or below), according to World Health Organization criteria.

An evaluation for secondary causes of low bone density was recommended by the interpreter reading the scans in 77 of the 712 women with *z* scores equal to or less than –1.5.

These 77 women were aged 27-84 years, with a mean of 53 years.

But only 49 (64%) of the 77 women actually had a secondary evaluation as recommended, and laboratory tests were drawn only in 42 (55%) of these women.

Most of the specialists—which included rheumatologists, osteoporosis specialists, and North American Menopause Society–certified women's health specialists—followed up with patients as recommended, compared with less than one-third of primary care physicians, which included general ob.gyns., internists, and family physicians who practiced at the Cleveland Clinic.

Of the 41 women whose DXA scan had been ordered by a specialist, 39 (95%) had a secondary work-up initiated by the physician. But among the 36 whose primary care physician had ordered the DXA scan, only 10 (28%) had a work-up, according to the investigators.

Of the 42 women who had the full work-up, including lab tests, 23 (55%) were diagnosed with vitamin D deficiency, 4 (9%) were diagnosed with primary hyperparathyroidism, and 5 (12%) were diagnosed with premature ovarian insufficiency.

Concluding that specialists were more likely to perform the secondary evaluation, the study authors recommended that vitamin D, 25-hydroxyvitamin D, and parathyroid hormone levels should be drawn on all women with *z* scores that are at or below –1.5.

In an interview with this newspaper, study investigator Holly L. Thacker, M.D., who is the head of the Cleveland Clinic Women's Health Center, said it is unclear whether the physicians read the entire report or perhaps did not know which secondary work-up to conduct. ■

Teens Lose Bone on DMPA, Recover It After Stopping Use

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Adolescent women who use the injectable contraceptive depot medroxyprogesterone acetate lose bone mineral density each year they are on the drug but appear to rapidly recover that loss when the drug is withdrawn, results of a prospective study suggest.

When counseling young women on birth control methods, physicians should consider DMPA's effect on bone mineral density (BMD).

"The potential loss of bone density is one consideration of the many that go into a women's choice of contraceptive method," said Delia Scholes, Ph.D., of the Center for Health Studies, Seattle, and her associates.

The DMPA users lost significantly more BMD at the hip (–1.81% vs. –0.19%) and spine (–0.97% vs. 1.32%), compared with nonusers.

The researchers prospectively examined BMD in a cohort of 170 females aged 14-18. A total of 80 participants were using DMPA, and 90 were not. The DMPA-exposed teens were significantly more likely to be current smokers, to have been pregnant, have reached earlier menarche, and have a higher body mass index and body fat percentage (Arch. Pediatr. Adolesc. Med. 2005;159:139-44).

During the study, 61 of the DMP users discontinued the contraceptive, affording the opportunity to observe any subsequent changes in BMD.

The DMPA-exposed subjects were receiving the standard dose of 150 mg every 3 months. About 30% of them had received only 1 injection, 31% had received 2 or 3 injections, 21% had received 4-7 injections, and 18% had received at least 18 injections.

In the comparison group, 19% were using oral contraceptives at baseline.

BMD was measured at the hip, spine, and whole body every 6 months for 24-36 months.

After adjusting for baseline and time-dependent variables, the researchers determined that the DMPA users lost significantly more BMD at the hip (–1.81% vs. –0.19%) and spine (–0.97% vs. 1.32%), compared with nonusers. Both groups gained BMD when the whole body was measured, but the DMPA users gained significantly less than the nonusers (0.73% vs. 0.88%).

New users lost bone faster than continuous users. After 24 months, new users showed a –6.09% change at the hip, compared with –2.05% in continuous users and –0.92% in nonusers.

Among the 61 subjects who discontinued DMPA during the study, BMD increased. Their annualized adjusted mean change in BMD was 1.34% for hip, 2.86% for spine, and 3.56% for the whole body.

There was no significance in BMD between nonusers and those who had discontinued DMPA 18 months earlier.

The injection is highly effective in preventing pregnancy, and its quarterly administration helps reduce compliance problems sometime seen in young women using other contraceptives, the researchers said.

In 2004, the Food and Drug Administration issued a black box warning for DMPA stating that prolonged use of the drug could result in significant loss of bone density, that the loss is greater the longer the drug is administered, and that bone density loss may not be completely reversible after discontinuing the drug. ■

Orlistat May Help in Treatment Of PCOS, Small Study Shows

BY CHRISTINE KILGORE
Contributing Author

The weight loss drug orlistat may prove to be a useful adjunct in the treatment of polycystic ovarian syndrome, according to findings from a small randomized study that compared the drug with metformin.

"[We've] demonstrated the therapeutic potential of orlistat in PCOS," said Vijay Jayagopal, M.D., of the University of Hull (England) and his associates.

The 'medications may be an effective treatment option for not only the obesity but also the testosterone excess associated with PCOS.'

After a 12-week treatment period, 10 women treated with orlistat lost significantly more weight than 11 patients treated with metformin (a 4.7% vs. a 1% reduction) and had similar, statistically significant reductions in total serum testosterone (J. Clin. Endocrinol. Metab. 2005;90:729-33).

Neither drug produced significant reductions in fasting insulin, insulin resistance, sex hormone–binding globulin, or any of several lipid parameters studied.

In a written statement, Andrea E. Dunaif, M.D., president-elect of the Endocrine Society, said further research is needed to determine "where [weight-loss medications] will fit into the treatment of PCOS."

The current study, however, "suggests that [the] medications may be an effective treatment option for not only the obesity but also the testosterone excess associated with PCOS," said Dr. Dunaif of Northwestern University, Chicago.

Before drug treatment, all 21 patients—white women with PCOS—underwent an 8-week period of dietary modification (there were no significant changes in weight); they were then randomized to receive orlistat, which inhibits triglyceride and lipid absorption, or the insulin-sensitizing agent metformin.

Compared with baseline, a significant reduction in serum testosterone was observed after treatment in both the orlistat-treated group (approximately 94 ng/dL vs. 115 ng/dL) and the metformin-treated group (approximately 97 ng/dlL vs. 120 ng/dL).

Investigators noted that despite the lack of statistically significant improvements in many of the endocrine and metabolic parameters studied, the percentage changes from baseline were "more marked" in the orlistat group.

This may suggest that "the weight reduction had an overall stronger impact on these parameters than the insulin-sensitizing effect of metformin, the mechanism of which remains largely unknown," they said.

Insulin resistance was calculated using the homeostasis model of assessment (HOMA-IR) method. The lack of statistically significant improvement in insulin resistance may be due in part to the large variability in HOMA-IR values in such a small group of patients, Dr. Jayagopal and his associates said.

The investigators did not collect information on menstrual change and ovulation, and the study was not powered to assess lipid changes. Such information is "clearly important" to acquire in larger studies, the investigators said.

In the meantime, Dr. Dunaif said, "we know that metformin is a proven and effective treatment for women with polycystic ovary syndrome." ■