Adherence Leads Challenges in Osteoporosis Care

BY BRUCE JANCIN

ESTES PARK, COLO. — Poor adherence accounts for more than 90% of all cases of failure to respond to osteoporosis therapy as evidenced by declining bone density or a fracture.

Lack of medication efficacy, on the other hand, is the least likely of the common causes for failure to respond. It ranks behind calcium/vitamin D deficiency, hyperthyroidism and other comorbid conditions, and the use of corticosteroids or other osteoporosis-inducing medications to treat comorbid conditions, Dr. Michael T. McDermott said at a conference on internal medicine sponsored by the University of Colorado.

He singled out failure to respond to treatment as one of the five top challenges in osteoporosis management today. Here are the other challenges highlighted by Dr. McDermott, professor of medicine and director of endocrinology and diabetes practice at University of Colorado Hospital, Denver:

► **Comorbid osteoporosis-inducing medications.** Glucocorticoids top the list. They simultaneously reduce bone formation and increase bone resorption, resulting in quick bone loss in patients taking steroids. Serious consideration should be given to prescribing osteoporosis therapy in any patient who has ever been on 5 mg/day or more of prednisone for at least 3 months, according to Dr. McDermott.

Compelling 18-month data from a randomized trial of teriparatide (Forteo) versus alendronate (Fosamax) for the treatment of glucocorticoid-induced osteoporosis showed teriparatide to be the clear winner, both in terms of increased bone density and fewer vertebral fractures (N. Engl. J. Med. 2007;357:2028-39). The soon-to-be-published 3-year follow-up data confirm this.

"He added that the No. 2 class of medications causing osteoporosis may come as a surprise to many physicians: anticonvulsants. "Anticonvulsant-induced osteoporosis hasn't been recognized as much, but it's emerging as quite important. It's a much bigger problem with phenobarbital, Dilantin, and Tegretol than with the newer anticonvulsants," he said.

"The best recommendation is, if you have a person on chronic anticonvulsant therapy, monitor their bone density, monitor their calcium, and rather than having a goal of 1,000 IU/day of vitamin D, they should be on 2,000-4,000 IU/day," he continued.

► **Atypical fractures of the femoral diaphysis.** These fractures are the most recent and worrisome development in the osteoporosis field. Many experts now informally advocate a bisphosphonate therapy holiday after 5 years of use in an effort to avoid these fractures. (See related article on next page.)

► **Osteonecrosis of the jaw.** This condition is marked by nonhealing exposed bone for at least 8 weeks following an invasive dental procedure such as tooth extraction. Dr. McDermott said that he doesn't see it often, but he fields many phone calls about it from physicians and dentists.

The great majority of cases have occurred in patients who were on high-dose intravenous bisphosphonate therapy for underlying bone cancer; oral bisphosphonates have not been shown to cause the disorder. Nevertheless, when Dr. McDermott is ready to start a patient on a bisphosphonate, he asks if a tooth extraction or dental implant is planned; if so, he'll wait to start the drug until after the procedure.

► **Osteoporosis medications and renal disease.** Citing a lack of safety data, the Food and Drug Administration recommends against using bisphosphonates in patients with an estimated glomerular filtration rate (eGFR) below 30 mL/min per 1.73 m^2. However, limited experience indicates that treatment is reassuringly safe and effective in patients with an eGFR of 15-30 mL/min per 1.73 m^2, according to Dr. McDermott.

"I do caution against antiresorptive therapy in patients with an eGFR below 15 mL/min—stage 5 chronic kidney disease—because it may predispose to adynamic bone disease," he added.

Dr. McDermott disclosed serving on the speakers bureaus of several pharmaceutical companies. ■