Hip Fracture Risk Higher in Elderly With Diabetes

BY MIRIAM E. TUCKER
Senior Writer

TORONTO — The risk for hip fractures appears to be elevated in elderly men and women with diabetes, Dr. Lorraine L. Lipscome reported in a poster at the joint annual meeting of the Canadian Diabetes Association and the Canadian Society of Endocrinology and Metabolism.

Whereas previous studies have documented an association between type 1 diabetes and osteoporotic fractures, the data on patients with type 2 diabetes have conflicted. Those studies have mostly been small and limited to women. Moreover, bone density is typically normal or high in type 2 diabetes, whereas it is reduced in type 1, leading some to believe that people with type 2 diabetes are somehow "protected," said Dr. Lipscome, of the University of Toronto.

In a retrospective cohort study using population-based Ontario health care databases from 1994 to 2003, researchers compared the risk of hip fractures between individuals older than 65 years of age with and without diabetes. After excluding those with prior hip fractures or hip replacements and those on oral corticosteroid treatment, the study population comprised 207,252 diabetics and 414,504 nondiabetics, with an overall mean age of 71.7 years. Information about diabetes type was not available, but it was presumed that most were type 2 because of the age group involved, Dr. Lipscome said in an interview.

After a mean of 6.1 years, the risk for hip fractures was significantly higher among those with diabetes, at 7.21 per 1,000 person-years, compared with 6.15 per 1,000 person-years among those without diabetes.

Compared with nondiabetics, those with diabetes had more comorbidity, were less likely to have had a bone mineral density test, and were more likely to be taking drugs that affected fall risk and bone density.

Women had a significantly higher risk for fracture than did men, but diabetes increased the risk in both genders, with hazard ratios of 1.22 for men and 1.19 for women. The increased risk remained significant (1.18 in men and 1.11 in women) after adjustment for age; comorbidity; prior stroke; visual impairment; neuropathy; amputation; treatment with nitrates, statins, anticonvulsants, inhaled corticosteroids, thiazides, or fall-promoting medications; history of a bone mineral density test; estrogen treatment in women; and income quintile in men, Dr. Lipscome reported.

Insulin use among the patients with diabetes increased the fracture risk, with hazard ratios of 1.34 in women and 1.64 in men, compared with those not using insulin.

Until the phenomenon is better understood, bone fracture risk assessment and enhanced prevention strategies are warranted in all patients with diabetes, she said. ■

IV Ibandronate Preferred By Those With Prior GI Intolerance

BY NANCY WALSH
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TORONTO — Women with postmenopausal osteoporosis who had previously discontinued oral bisphosphonate therapy because of gastrointestinal intolerance preferred an intravenous, every-3-month regimen of ibandronate over a monthly oral regimen, Dr. E. Michael Lewiecki reported at a world congress on osteoporosis.

Complex dosing instructions designed to maximize bioavailability and address tolerability concerns may affect adherence to oral bisphosphonate therapy, and adherence is crucial to clinical efficacy and fracture prevention, Dr. Lewiecki noted.

By month 4, 28.1% and 36.6% of patients on the oral and intravenous drugs, respectively, reported improved GI tolerance, compared with baseline.

Adherence was addressed in a 12-month, open-label multicenter study that included 542 patients with osteoporosis or osteopenia who had stopped daily or weekly treatment with oral alendronate or risedronate because of perceived or actual symptoms such as heartburn and acid reflux. All received supplemental vitamin D (400 IU/day) and elemental calcium (1,000 mg/day).

Patients were given the choice of oral ibandronate, 150 mg once monthly, or 3 mg by intravenous injection every 3 months. A total of 396 (73%) of patients chose the intravenous regimen, while 146 (27%) chose the oral route.

They were permitted to switch treatment groups once during the study if they experienced adverse effects, he noted.

Severity and frequency of gastrointestinal symptoms and other side effects were evaluated with surveys administered at baseline and at months 1, 4, 7, and 10.

Available data indicate that adherence to both regimens at 6 months was high, at 94.5%. Actual duration of study medication intake divided by maximum duration of intake and a threshold of 75% or more was used to define adherence, according to Dr. Lewiecki of New Mexico Clinical Research and Osteoporosis Center, Albuquerque.

Among patients receiving the oral drug, adherence was 87.7%, while adherence was 94.9% among those receiving the intravenous formulation, Dr. Lewiecki wrote in a poster session at the meeting, which was sponsored by the International Osteoporosis Foundation.

Among patients who chose intravenous administration, 147 (37.1%) had a history of fracture as an adult, compared with 36 (24.7%) of those who chose the oral drug.

Thus far, 26 patients have switched their route of administration. Eleven switched from oral to intravenous ibandronate because of gastrointestinal intolerance, while 15 switched from intravenous to oral for reasons including influenzalike symptoms and injection-site reactions.

By month 4, 28.1% and 36.6% of patients on the oral and intravenous drugs, respectively, reported improved gastrointestinal tolerance, compared with baseline.

"Based on these findings, it appears that patients who had previously discontinued weekly or daily oral bisphosphonates because of gastrointestinal intolerance prefer intravenous dosing, and that patients with a previous fracture are even more likely to do so than patients without a previous fracture," Dr. Lewiecki concluded.

The study was sponsored by Roche Laboratories. ■