

Monthly Bisphosphonate Holds Its Own at 2 Years

BY BRUCE JANCIN
Denver Bureau

VIENNA — Oral ibandronate at 150 mg once monthly showed continued impressive therapeutic efficacy in women with postmenopausal osteoporosis at the 2-year mark in the Monthly Oral Ibandronate in Ladies (MOBILE) trial, Pierre D. Delmas, M.D., said at the annual European congress of rheumatology.

Ibandronate (Boniva) was approved by the Food and Drug Administration this spring as the first once-monthly oral bisphosphonate, in part because of the persuasive 1-year results of MOBILE.

The new 2-year data provide reassurance that over the longer term this therapy continues to be a highly effective and well-tolerated alternative to daily or weekly bisphosphonates, said Dr. Delmas, professor of medicine and rheumatology at Claude Bernard University, Lyon, France.

MOBILE is a randomized, double-blind, phase III, Roche- and GlaxoSmithKline-sponsored clinical trial involving 1,609 women with postmenopausal osteoporosis who were placed on oral ibandronate at 2.5 mg/day, 100 mg once per month, 150 mg once per month, or 50 mg on each of two consecutive days per month.

The daily-therapy arm served as the comparator group in this trial because 2.5 mg/day was the first FDA-approved ibandronate regimen, and it was previously shown to reduce vertebral fracture risk by 62% compared with placebo in a 3-year trial. Dr. Delmas focused

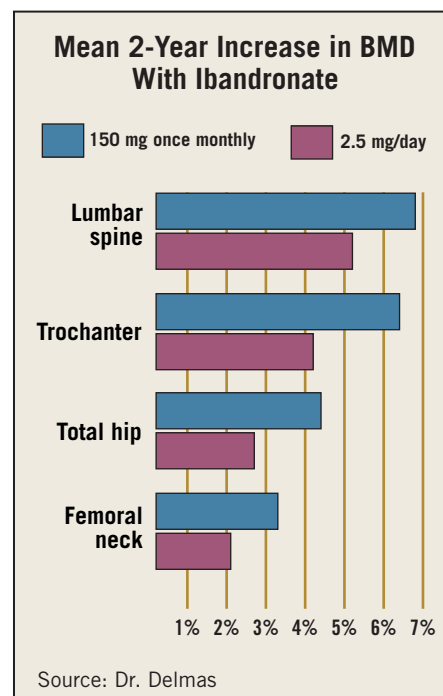
on the once-monthly 150-mg group because this dosage showed the greatest efficacy and is already approved in the United States.

MOBILE wasn't designed or powered to evaluate fracture risk. Instead, it was a bridging trial that relied upon the surrogate end points of change in bone mineral density (BMD) and bone resorption markers in an effort to establish that monthly therapy was noninferior to the 2.5 mg/day regimen.

In fact, the 150-mg once-monthly regimen proved to be superior to daily therapy in terms of improvement in BMD at various sites at 2 years. (See chart.)

The mean decrease in the bone resorption marker serum C-terminal cross-linking telopeptide of type I collagen (sCTX) was 67.7% in the 150-mg once-monthly group and 61.5% with daily therapy.

Tolerability and the incidence of side effects in all of the once-monthly study arms at 2 years were similar to rates with daily therapy, as was also true after 1 year, Dr. Delmas said during the meeting, which was sponsored by the European League Against Rheumatism.



MOBILE coinvestigator Jean-Yves Reginster, M.D., said it's a reasonable hypothesis that once-monthly bisphosphonate therapy will result in better therapeutic adherence than weekly or daily therapy, as 1-year adherence to bisphosphonate therapy has previously been shown to be nearly twice as great with weekly versus daily treatment.

This hypothesis is supported by data from a large new European patient survey indicating that four-fifths of women with postmenopausal osteoporosis would be interested in dosing regimens that are less frequent than weekly, and three-quarters of physicians believe that such regimens would have a strong favorable effect upon adherence.

"We're now facing a new challenge in the management of osteoporosis: It's that bisphosphonate compliance and persistence with daily or weekly regimens remain largely suboptimal. More than one-half of patients don't even take their drug for 12 months," commented Dr. Reginster, who is a professor of epidemiology, public health, and health economics at the University of Liège, Belgium. ■

Study Ties Long-term Use of Acid Suppressors to Fracture Risk

BY ANN C. LOGUE
Contributing Writer

CHICAGO — Long-term use of proton-pump inhibitors, histamine₂-receptor antagonists, and other acid suppressors increases the risk of hip fracture, Yu-Xiao Yang, M.D., reported at the annual Digestive Disease Week.

Physicians turning to a combination of NSAIDs and proton-pump inhibitors (PPIs) in place of cyclooxygenase-2 (COX-2) inhibitors should be aware of this effect in patients who are at increased risk of osteoporosis, but they should not deny this therapy to patients with appropriate indications, said Dr. Yang of the division of gastroenterology at the University of Pennsylvania, Philadelphia.

PPIs interfere with calcium absorption, leading to an increased risk of hip fracture.

"Do patients with more than 1 year of PPI therapy have more hip fractures? Up until now, there has been no epidemiological study to address this," Dr. Yang said.

His conclusions came from a retrospective cohort study of 518,096 patients older than 40 years who were included in the U.K. General Practice Research Database between May 1987 and April 2002. Of these, 47,631 had more than 1 year of exposure to a PPI; the remaining 470,465 patients had no exposure to either a PPI or histamine₂-receptor antagonist (H2RA).

By looking at complete prescription information and validated hip fracture reports, the researchers discovered that taking a PPI long term was associated with an increased risk of hip fracture, with a relative risk of 1.9 associated with at least 1 year of PPI use. The relationship had both a dose-response effect and a duration-response effect. H2RA use also increased the relative risk of hip fracture, but to a lesser extent.

In general, the PPI-exposed patients were sicker and took more medications, so potential confounders were considered and adjusted for if they represented markers of comorbidity status or if they had an effect on the central nervous system that would increase the risk of falling, Dr. Yang said. After adjustment for potential confounders,

there was still a significantly increased risk of hip fracture among long-term PPI users. Significant confounders included antidepressant use and an increased number of office visits.

Another hypothesis of the study, Dr. Yang said, is that men would be at greater risk because they do not take calcium supplements and do not talk about osteoporosis with their doctors. And, in fact, the data show just that: The relative risk of hip fracture associated with PPI use was much higher among men than among women.

The study was limited by the assumption of 100% compliance with therapy and the lack of information on use of over-the-counter drugs, Dr. Yang said. ■

Taking a PPI for at least 1 year was associated with a relative risk of 1.9 for hip fracture. The relationship had a dose-response and duration-response effect.

Calcitonin Spray May Preserve Trabecular Bone Architecture

BY JEFF EVANS
Senior Writer

BETHESDA, MD. — Calcitonin nasal spray appears to preserve trabecular bone microarchitecture at the distal radius without substantially altering bone mineral density, Charles H. Chestnut III, M.D., reported during a meeting on bone quality.

In a 2-year, randomized, double-blind trial involving 91 women with an average age of 67 years, high-resolution MRI analysis of the distal radius showed that calcitonin nasal spray preserved significantly more trabecular bone architecture than placebo.

Calcitonin's effects included preservation of the volume, number, spacing, and thickness of trabecular bone, Dr. Chestnut wrote in a poster presentation at the meeting, which was sponsored by the National Institute for Arthritis and Musculoskeletal and Skin Diseases and the American Society for Bone and Mineral Research.

Trabecular bone microarchitecture was significantly preserved—if not reinforced—in calcitonin patients, compared with placebo patients, despite loss in bone mineral density (BMD) at the distal radius or lumbar spine during the same period, Dr. Chestnut said.

In placebo patients, the number of trabeculae declined slightly at

those sites even if the women had gained BMD.

The results are consistent with earlier reports showing that calcitonin spray was associated with reductions in osteoporotic fractures in postmenopausal women with a history of vertebral fracture, despite producing minimal increases in BMD, said Dr. Chestnut, professor of medicine and radiology at the University of Washington, Seattle.

Almost none of the measurements of BMD in the lumbar spine or midradius were significantly correlated with measures of trabecular microarchitecture change as shown on high-resolution MRI, suggesting that "BMD is a poor marker for trabecular microarchitecture," Dr. Chestnut wrote.

In the calcitonin group, trabecular microarchitecture in the lower trochanter was preserved, according to T2-MRI findings, regardless of whether patients lost or gained total hip BMD.

By comparison, trabecular microarchitecture deteriorated in the placebo group.

All women in the trial received calcium supplementation.

Dr. Chestnut reported that he has received research grants and consulting fees from Novartis Pharmaceuticals Corp., which funded the trial and manufactures calcitonin-salmon nasal spray, marketed as Micalcine. ■