Low-Trauma Fractures Lack Needed Follow-Up

BY PATRICE WENDLING
Chicago Bureau

QUEBEC CITY — Women who have had a low-trauma fracture are not getting the follow-up they need for osteoporosis, Sonia Singh, M.D., reported in a poster at the annual meeting of the North American Primary Care Research Group.

History of a low-trauma fracture is associated with a 40% increased risk of hip fracture, Dr. Singh said.

A retrospective chart review identified 100 women, 40 years or older, who presented with a low-trauma fracture to a community hospital emergency department. A questionnaire was sent to them 6-9 months after a fracture to determine whether they had been given a diagnosis of osteoporosis or received any treatment.

Preliminary results from 42 women showed that 22 (52%) had received no follow-up, 12 (29%) had received an ultrasound or bone mineral density scan, and 8 (19%) had follow-up without testing.

Of the 20 patients with follow-up, 7 (35%) had been prescribed medications.

Interviews with the women revealed only seven (17%) thought they were at an increased risk for another fracture.

Surprisingly, a history of two or three fractures did little to change that perception or to improve medication rates, said Dr. Singh, clinical research associate, Peace Arch Hospital, White Rock, B.C., Canada.

A previous study found similar follow-up and treatment rates, with fewer than 20% of 108 men and women who presented with fragility-type fractures at three Ontario hospitals receiving follow-up 1 year later (CMAJ 2000;163:819-22). "Despite the fact there has been a heightened profile for osteoporosis, that …has not improved the management," she said. ■

Vitamin D's Effect Exceeds Calcium's On Bone Health

Vitamin D sufficiency appears to be more important for bone health than is high calcium intake, according to Laufey Steingrimsdottir, Ph.D., of the Public Health Institute of Iceland, Reykjavik, and associates.

Both nutrients are known to influence calcium homeostasis, but the relative contributions of each haven't been studied before, they said (JAMA 2005:294:2336-41).

Although ideal intakes of these two nutrients "need to be further defined in more elaborate studies, there is already sufficient evidence from numerous studies for physicians" to further emphasize the vital importance of vitamin D to bone health, Dr. Steingrimsdottir and associates said.

Physicians should recommend vitamin D supplements for the general public "when sun exposure and dietary sources are insufficient," they added.

The researchers assessed the relative importance of calcium intake and serum levels of 25-hydroxy vitamin D for maintaining calcium homeostasis in a study of 944 healthy white residents of Iceland. The 491 women and 453 men, aged 30-85 years.

Most Icelanders take vitamin supplements or cod liver oil to supply vitamin D because there isn't sufficient sunshine there throughout the year for adequate biosynthesis of vitamin D. Most also have a relatively high calcium intake, chiefly through the consumption of dairy products. In this study, the mean intake of both vitamin D and calcium were well above recommended levels in all age groups, although there was great variation in both.

Vitamin D status was found to ensure ideal values for serum parathyroid hormone, even when calcium intake was not sufficient to maintain those PTH levels.

In addition, mean serum ionized calcium levels, a more precise marker of calcium homeostasis and thus of bone health, were dependent on serum 25-hydroxyvitamin D levels, but not on calcium intake.

"Although sufficient intake of both nutrients is certainly important, our study indicates that as long as vitamin D status is secured by vitamin D supplements or sufficient sunshine, calcium intake levels of more than 800 mg [per day] may be unnecessary for maintaining calcium homeostasis," the investigators noted, adding that high calcium intake levels "may have other beneficial effects not addressed in this study," such as possibly protecting the gut lumen against polyp formation.

—Mary Ann Moon

Pages 6a—6b