Treat the Patient, Not the T Score, Expert Advises

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NEW YORK — While bone mineral density T scores clearly are predictive of a postmenopausal woman's osteoporotic fracture risk, treatment decisions should take into account other factors, including her overall health and history of previous fractures, Stephen Honig, M.D., said at a rheumatology meeting sponsored by New York University.

"We have to do better than the T score in deciding who needs treatment for osteoporosis, because the long-term use of bisphosphonates has not been determined to be safe," said Dr. Honig, director of the osteoporosis center at the Hospital for Joint Diseases Spine Center in New York.

Very long-term bisphosphonate therapy may lead to oversuppression of bone turnover, he said. This superhardening can hinder subsequent fracture healing, as was seen in a recent report of nine patients who sustained spontaneous, nonhealing fractures while on alendronate therapy (J. Clin. Endocrinol. Metab. 2005;90:1294-301).

These patients showed histomorphometric evidence of markedly suppressed bone formation, Dr. Honig said.

This new finding has heightened interest in targeting osteoporosis treatment. Research findings have begun to provide guidance on which patients can most benefit from treatment.

Most notable was the National Osteoporosis Risk Assessment (NORA) study, which enrolled 200,160 postmenopausal women aged 50 and older. In that study, bone mineral density (BMD) measurements were obtained at baseline, and the participants were followed for 1 year.

At follow up, one-third of all fractures and one-fifth of all hip fractures in particular occurred in women aged 50-64. Although the majority of fractures did occur in women 65 and older, the high number in the younger cohort "was a little surprising," said Dr. Honig.

In addition, 80% of the women who had fractures during NORA had T scores that were higher than –2.5 and therefore did not meet the World Health Organization definition of osteoporosis. Most fell between –1 and –2.5, the osteopenic range, he said.

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"We want to identify patients at risk in this middle range and not wait until they have obvious fractures," he said.

The NORA investigators subsequently followed 57,421 osteopenic women and developed an algorithm for determining risk. As it turns out, identifying patients with a previous fracture, a T score below –1.8, a self-reported health status of fair or poor, and poor mobility were all factors significantly predictive of fracture risk (Arch. Intern. Med. 2004;164:1113-20).

Another prospective study conducted in France followed 672 healthy postmenopausal women for more than 5 years, and found an annual incidence of osteoporotic fractures of 21 per 1,000 women per year (Bone 2003;32:78-85). The French investigators identified the key risk factors (in order of importance) to be: a past fracture, hip BMD, low physical activity, low grip strength, age over 65, maternal fracture history, and past falls.

Based on the available data and tools at hand, Dr. Honig recommends that clinicians now consider treatment for the following patients:

► Women 65 and older, with or without a history of fracture, who have low BMD or other risk factors, such as low BMI and family history.

► Women 50 and older with a previous fracture and a T score of –1.8 or less.

► Women in poor overall health with mobility problems and low BMD.

► Women with low BMD and increased markers of bone resorption.

But some key questions still remain unanswered, Dr. Honig said. How long can a bisphosphonate be used? When should teriparatide or a selective estrogen receptor modulator be used? And what place does hormone therapy have in treatment strategies?

Dr. Honig disclosed that he receives support from Eli Lilly & Co. and is on the speakers' bureau of Sanofi-Aventis. ■

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