Weekly Bisphosphonate Adherence Is Mediocre

BY KERRI WACHTER
Senior Writer

NASHVILLE, TENN. — Women with postmenopausal osteoporosis are no more likely to adhere to bisphosphonate therapy with weekly dosing than with daily dosing, according to data presented in a poster at the annual meeting of the American Society for Bone and Mineral Research.

In a retrospective study of 12,538 women with postmenopausal osteoporosis, risk of adherence failure did not differ between patients receiving weekly versus daily bisphosphonate therapy, according to Derek Weycker, Ph.D., of Policy Analysis Inc. in Brookline, Mass., and colleagues.

The researchers reviewed integrated medical and outpatient pharmacy claims from 1998 to 2003 for women aged 45 years and older with postmenopausal osteoporosis from 30 U.S. health plans.

Women were said to have postmenopausal osteoporosis if they had one or more medical claims with a corresponding diagnosis code. They also had no evidence of secondary causes of osteoporosis.

Adherence was assessed daily from the date of therapy initiation through the date of a switch to another antiosteoporosis drug or formulation, date they left the plan, or Dec. 31, 2003—whichever came first.

Within 6 months of initiating therapy, 57% of the 9,117 women on weekly therapy and 62% of the 3,421 women on daily therapy were considered to have adherence failure. At 1 year, 66% of those on weekly therapy and 71% of those on daily therapy had adherence failure. At 2.5 years, the rates were 80% for weekly therapy and 82% for daily therapy.

Risk of failure was higher among women aged 65 years and older but lower in those with a fracture history. The researchers did not assess adherence for specific drugs.

The research was funded by Amgen Inc., which is currently investigating a fully monoclonal antibody for osteoporosis. ■

Sex Hormones Mediate Effect Of PTH in Men

NASHVILLE, TENN. — Suppression of androgens or estrogens increases bone turnover and bone loss in men, according to data presented at the annual meeting of the American Society for Bone and Mineral Research.

Gonadal steroid deprivation has been reported to increase skeletal sensitivity to the bone-resorbing properties of parathyroid hormone (PTH) in men. It's not clear whether this effect is due to the absence of estrogens, androgens, or both, said Dr. Benjamin Z. Leder, of Massachusetts General Hospital in Boston.

A total of 58 men, aged 20-45 years, were assigned to receive combinations of gonadotropin-releasing hormone (GnRH), an aromatase inhibitor, and hormone add-back therapy for 6 weeks, depending on their hormonal status.

Men in group 1 (16) received a GnRH analog, 3.6-mg goserelin acetate, given subcutaneously every 3 weeks, as well as an aromatase inhibitor, 5-mg anastrozole, given daily. These men were testosterone and estradiol deficient for the duration of the study. Men in group 2 (12) also received the GnRH analog and aromatase inhibitor, but testosterone was replaced with a testosterone gel (AndroGel), at 5 g daily. These men were testosterone sufficient and estradiol deficient. Men in group 3 (14) received the GnRH analog and aromatase inhibitor, but estradiol was replaced with an estradiol transdermal patch, applied twice weekly. These men were testosterone deficient but estradiol sufficient. Men in group 4 (16) received the GnRH analog, aromatase inhibitor, testosterone gel, and estradiol patch. These men were sufficient in both testosterone and estradiol and served as a control group.

All men underwent infusions of PTH (1-34) at baseline and at 6 weeks. Serum levels of the bone turnover marker cross-linked N-telopeptides (NTx) of type I collagen were measured during the infusions.

Mean NTx levels measured prior to PTH infusion did not change between baseline and week 6 in the control group, but NTx levels increased by 24% in group 1, by 16% in group 2, and by 11% in group 3. Serum NTx increased during PTH infusion in all groups at all time points.

—Kerri Wachter

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