

OSTEOSCOOP

News on current events in osteoporosis and rheumatology

Effects of long-term strontium ranelate treatment on the risk of nonvertebral and vertebral fractures in postmenopausal osteoporosis

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This study [1] was undertaken to assess the effect of strontium ranelate on nonvertebral and vertebral fractures in postmenopausal women with osteoporosis in a 5-year, double-blind, placebo-controlled trial. A total of 5091 postmenopausal women with osteoporosis were randomized to receive either strontium ranelate at 2 g/day or placebo for 5 years. The main efficacy criterion was the incidence of nonvertebral fractures. In addition, incidence of hip fractures was assessed in the subset of 1128 patients who were at high risk of fractures (age 74 years or older with lumbar spine and femoral neck bone mineral density T scores < -2.4 or less). The incidence of new vertebral fractures was assessed in the 3646 patients in whom spinal radiography (a nonmandatory procedure) was performed during the course of the study.

Of the 5091 patients, 2714 (53%) completed the study up to 5 years. Over 5 years of treatment, strontium ranelate significantly reduced the risk of vertebral and nonvertebral fracture compared with placebo group. In addition, in patients at high risk of fractures, the risk of hip fracture was significantly decreased by 43% in the strontium ranelate group. After 5 years, the safety profile of strontium ranelate remained unchanged compared with the 3-year findings.

This study is the first report of a preplanned analysis assessing the efficacy of an antiosteoporotic treatment in preventing nonvertebral and vertebral fractures over a 5-year follow-up. In addition, it should be noted that no other study has demonstrated that a treatment was efficacious in preventing hip fracture in the long-term.

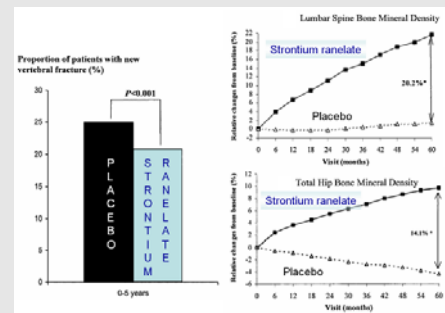
These findings indicate that treatment of postmenopausal osteoporosis with strontium ranelate results in a sustained reduction in the incidence of osteoporotic nonvertebral fractures, including hip fractures, and vertebral fractures over 5 years.

1. Reginster JY et al. *Arthritis Rheum.* 2008 58:1687–95

Long-term strontium ranelate treatment decreased the risk of nonvertebral and vertebral fractures in postmenopausal osteoporosis

A total of 3646 patients were evaluated for vertebral fractures. The numbers of patients experiencing 1 new vertebral fracture over 5 years were 307 in the strontium ranelate group and 384 in the placebo group. These differences were accounted for by a dramatic effect of strontium ranelate on bone mineral density which increased progressively with treatment whereas it remained stable or decreased under placebo.

These findings indicate that treatment of postmenopausal osteoporosis with strontium ranelate results in a sustained reduction in the incidence of osteoporotic nonvertebral fractures, including hip fractures, and vertebral fractures over 5 years.



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