

EFFICACY AND SAFETY OF TERIPARATIDE TREATMENT IN SEVERE OSTEOPOROSIS

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The use of recombinant human parathyroid hormone is a novel therapy for osteoporosis with a unique mechanism of action. Respect to antiresorptive agents, which reduce bone remodeling, initially teriparatide stimulates bone formation and later increases bone remodeling. However, three important conditions need to be addressed:

- 1) compliance, acceptance and safety of teriparatide injections in patient population that has failed a previous therapy;
- 2) if initiating or following to anabolic therapy a therapy with an antiresorptive, since combined therapy has already been shown to reduce the anabolic effects of teriparatide. However, when these patients are switched from an antiresorptive to teriparatide, it is important to consider if the reduction in bone turnover, induced by antiresorptive, may affect the ability of subsequent administration of PTH to stimulate the processes associated with bone formation;
- 3) if and how monitor hypercalcemia in that patients receiving teriparatide therapy. A major study demonstrated that transient and/or chronic hypercalcemia were rare, and that manipulations of doses of calcium and vitamin D helped to lower serum calcium levels, but no general guidelines have been reported so far in scientific literature for the use of vitamins and minerals in the treatment of patients taking teriparatide.

The authors will show the clinical, biochemical and instrumental data of a group of 18 females with osteoporosis (age 53-79), T-score from -2.6 to -4, who experienced an additional fracture after the least one year of conventional treatment (alendronate in fourteen patients, raloxifene in one patient) and therefore treated with teriparatide.

Months of observation range between 14 and 3. Three patients were lost during the follow-up for poor compliance with the daily self-injection administration. In the remaining 15 patients, only 1000 mg/day of elemental calcium was given. Any adverse effect was registered during monitoring. No additional fractures were experienced by the patients. Six months treatment of teriparatide was associated in decrease in back pain, regardless of the patients previous type of antiresorptive therapy.

In this group of severely osteoporotic patients, acceptance, compliance and overall treatment satisfactions of teriparatide was very high. No persistent hypercalcemia was noted.