

Cinacalcet HCl Might Be An Option for Treatment of Adynamic Bone Disease

Tom Cantor, Scantibodies Laboratory, Inc., Santee, CA, USA.

Cinacalcet HCl is a calcimimetic that sensitizes the calcium sensing receptor. It has been supposed that Cinacalcet would be effective in lowering bone turnover. However, recent data from the Amgen clinical trial presented at the European Renal Association 2004 meeting in Lisbon, Portugal revealed that for patients in a dual before and after bone biopsy trial, 28% of the Cinacalcet-treated patients showed a lowering of bone turnover. However, in the same trial, there was a bone turnover lowering observed in 38% of the placebo-treated group. This data would suggest that Cinacalcet does not lower bone turnover. The 1-84 PTH/7-84 PTH ratio has been demonstrated to be predictive of bone turnover with a greater than 90% accuracy. In our laboratory we have observed that vitamin D analogs lower the 1-84 PTH/7-84 PTH ratio. However, we have observed that Cinacalcet does not lower the ratio. We reported elsewhere that for 5 pts with parathyroid cancer under Cinacalcet treatment, the ratio did not decrease, however, there was a significant lowering of serum calcium. Presently, it is suspected that ESRD patients with adynamic bone disease are at special risk of calcification due to the inability of bones to incorporate calcium. This might set ESRD patients with adynamic bone disease at particular risk of soft tissue calcification. Therefore, it is of particular importance to control calcium and the calcium x phosphate product in patients with adynamic bone disease. Moreover, there are few therapeutic options for the treatment of adynamic bone disease. As Cinacalcet HCl does not appear to lower bone turnover (based on the above mentioned biopsy study and ratio results), yet is highly effective at lowering calcium, Cinacalcet HCl should be studied for its potential as a treatment to lower risks of calcification in patients with adynamic bone disease.

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