

Enhanced Healing of Sacral and Pubic Insufficiency Fractures by Teriparatide

To the Editor:

We describe healing of enhanced insufficiency fracture of combined pubic rami and sacrum by daily teriparatide (1-34 PTH) injection.

A 73-year-old woman was admitted because of acute low back and groin pain. She denied any trauma history. Plain radiographs revealed fracture of the left superior ramus (Figure 1A). Because of the disproportionate pain and lack of response to analgesics with bed rest for 2 weeks, a bone scan was arranged and showed sacral and 4 rami fractures (Figure 1B). Daily teriparatide injection was initiated with calcium 1000 mg/day and vitamin D 400 IU/day supplements for osteoporosis. At 3 months' fol-

lowup, the pain had subsided completely, with abundant callus formation on rami fractures (Figure 1C). The fractures showed good consolidation at the end of 18 months (Figure 1D).

Sacral combined with rami insufficiency fractures usually occur in osteoporotic bone and are often underdiagnosed¹. Management includes bed rest, analgesic, and gradual mobilization². Owing to its relationship to osteoporosis, additional medications for enhancing bone strength and preventing further fractures are mandatory.

There are many reports about the fracture-healing potential of teriparatide and its analog for femoral neck³ and pubic insufficiency fractures⁴. Our experience may expand the applications of anabolic agents for osteoporosis.

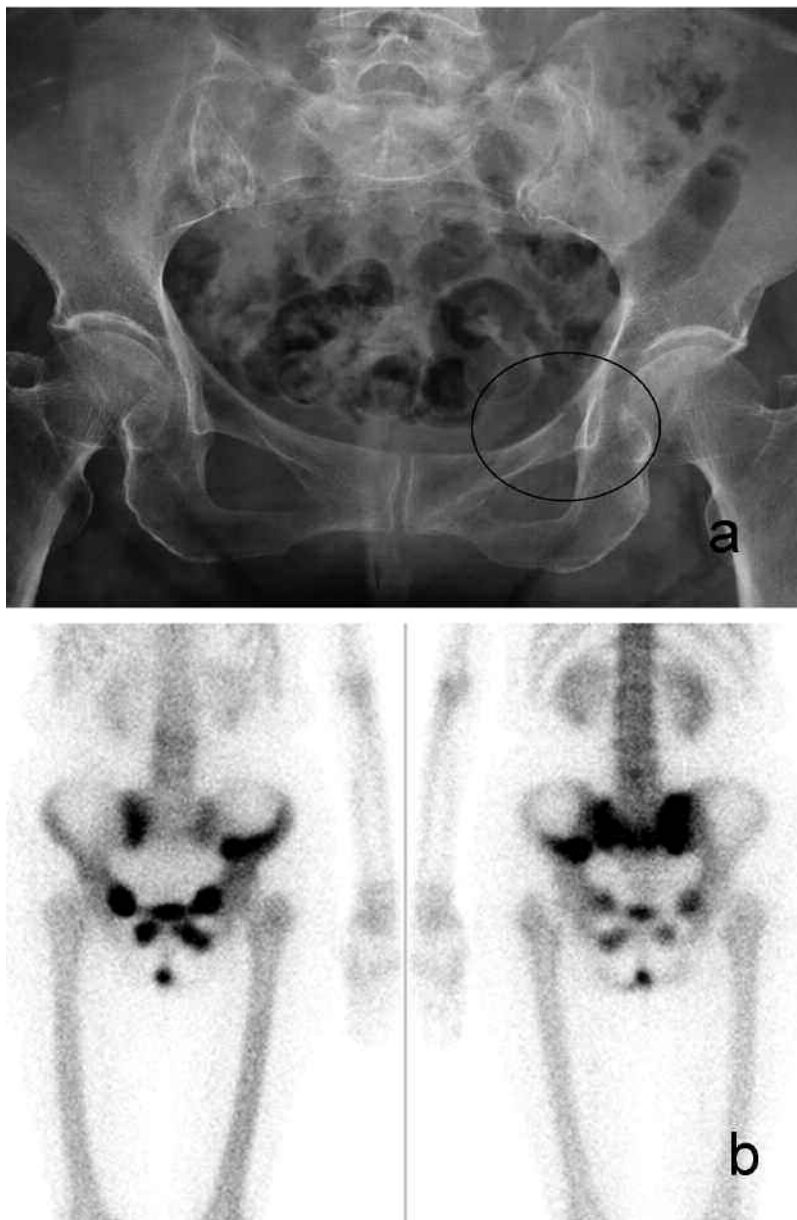


Figure 1. A. Plain radiograph reveals left superior ramus fracture (circle). No fracture noted on other 3 rami. B. Bone scan demonstrates increased uptake of 4 rami and sacrum ("H" sign), consistent with insufficiency fractures.

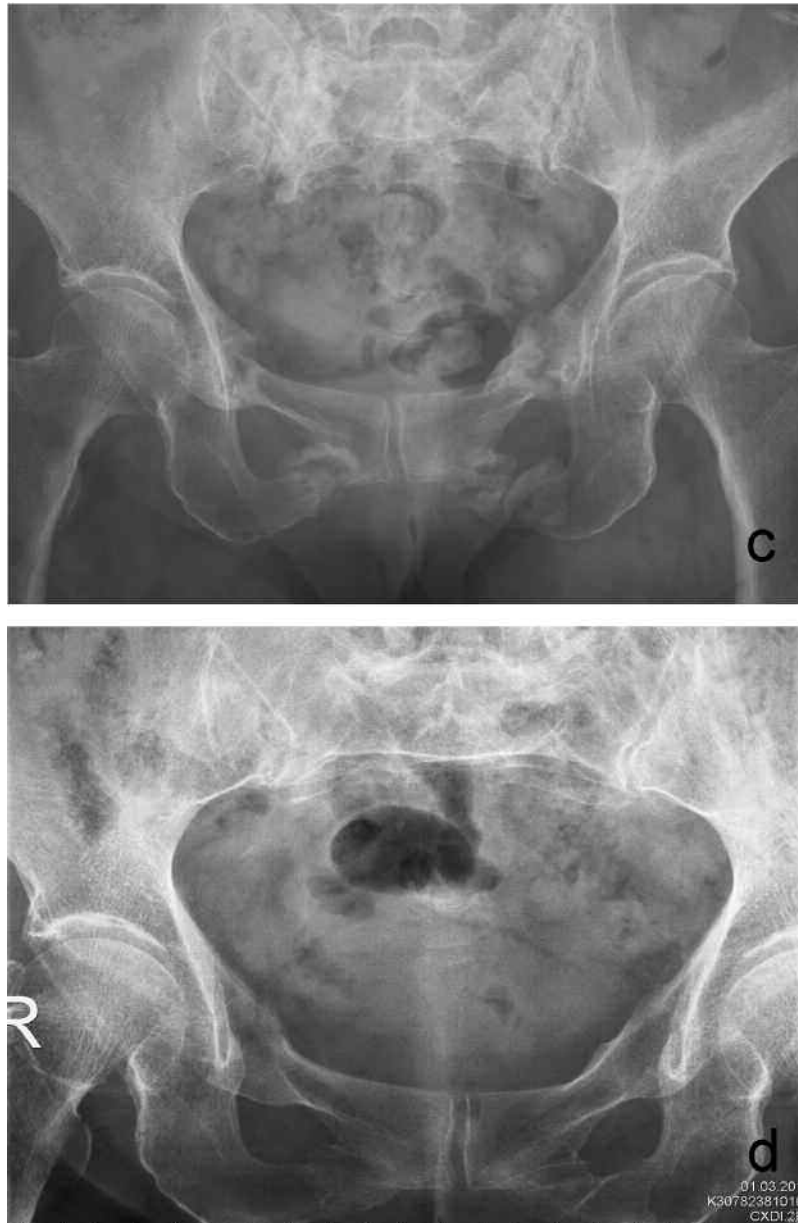


Figure 1. C. Abundant callus formation after teriparatide for 3 months. D. Complete union and remodeling of pubic rami fractures at 18 months' followup.

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