Dear Sir,

Paget’s disease of the bone is a still unexplained disease in which increased bone re-sorption and massive bone formation coexist. Attempts to restore and maintain a normal bone turnover in this condition have included long-term therapy with biphos-phonate and calcitonin [1,2]. Here we report our experience with subcutaneous calcitriol given to a patient with proven Paget’s disease. A 47-year-old man with Paget’s disease was admitted to the Nephrology Division of S. Martino Hospital in November 1991 because of persistence of bone pain while on chronic ethidronic and salmon calcitonin treatment. Scintiscans and roentgenograms of the bone demonstrated involvement of the pelvis, the sacrum, the lumbar spine, the right proximal arm and the right fibula. The patient was a chronic uremic with a creatinine clearance at that time of about 10 ml/min. A course of therapy with 2 µg calcitriol, subcutaneously, thrice weekly, was started and continued for 16 months. Serum calcium and phosphate were measured monthly and calcitriol doses were halved for a week whenever serum calcium attained a level of 11 mg/dl or serum phosphate neared 5.5 mg/dl. Intact parathormone (n.r. = 10-55 pg/ml) was measured by an IRMA (Incstar Corp., Stillwater, Minn., USA) and alkaline phos-phatase (AP) (n.r. = 97-279 U/l), serum Ca and serum P by routine laboratory methods. Pretreatment PTH was 69 pg/ml, AP was 2,170 U/l, P was 4.1 mg/dl and Ca was 9 mg/dl. After 16 months of treatment, PTH had decreased to 7 pg/ml, AP had decreased to 738 U/l (fig. 1) and the bone pain had nearly disappeared. Both Ca (fig. 1) and P tended to

![Graph showing changes in serum calcium and AP concentrations](image)

**Fig. 1.** Changes in serum calcium and AP concentrations, in a uremic Pagetic man treated with subcutaneous calcitriol (2 µg, thrice weekly) over a period of 16 months. Dashed area is the normal range of AP.

References


rise to levels higher than baseline. Scintiscan bone findings remained unchanged. The decreased AP concentration following calcitriol treatment suggests less osteoblastic activity. In vitro, 1,25-OH2D3 had been proven to be effective for lowering the AP activity of cultured neonatal mouse osteoblast-like cells [3]. Thus, it is possible that it might have had the same effect on the high turnover Pagetic bone of our patient.
The experience reported here encourages us to use subcutaneous calcitriol treatment to control Paget’s disease in man.