

1 alpha-hydroxy vitamin D₃ treatment of non-dialyzed patients with chronic renal failure. Effects on bone, mineral metabolism and kidney function.

Nielsen HE, Romer FK, Melsen F, Christensen MS, Hansen HE. *Clin Nephrol* 1980; 13(3):103-108.

Abstract.

Nine non-dialyzed patients with creatinine clearance below 20 ml/min and histological and biochemical signs of renal osteodystrophy received 1 alpha-hydroxy vitamin D₃ for 6 months in a mean daily dosage of 0.9 µg. The serum concentrations of calcium and phosphate increased, and the serum concentrations of alkaline phosphatase and parathyroid hormone decreased during treatment. Quantitative histological examination of iliac crest bone biopsies showed a marked improvement of uremic bone changes, including normalization of the initial low mineralization rates evaluated by tetracycline uptake in bone. No significant change was seen in bone mineral content in the forearm measured by photon absorptiometry. An accelerated loss of kidney function was observed during the treatment period with 1,25(OH)-D₃ as compared with control periods before and after the treatment.