

Is 1,25-Dihydroxy-Cholecalciferol Harmful to renal Function in Patients with Chronic Renal Failure?

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Abstract/Summary:

Seventeen undialysed adult patients with chronic renal failure took part in a controlled study of the effects of 1,25(OH)₂D₃ and D₃. After a 6-month observation period the patients were allocated at random to two groups for 6 months of treatment with either 1,25(OH)₂D₃ (mean dose 0.5 µg daily) or D₃ (dose 100 µg daily). Treatment was then discontinued and the patients were studied for a further 6 months.

Serum iPTH was decreased in both groups but most markedly in the 1,25(OH)₂D₃ group in which the iPTH values became normal. Serum creatinine increased during treatment in both groups. In the group receiving 1,25(OH)₂D₃ this was coupled to an increase in serum calcium within the normal range.

Our data demonstrate that 1,25(OH)₂D₃ treatment in patients with chronic renal failure leads to a further reduction in renal function, which may be partially reversible. Physicians should therefore be reluctant to give vitamin D analogues to patients with chronic renal failure unless they have severe symptomatic renal osteodystrophy.