Microcrystalline hydroxyapatite compound in prevention of bone loss in corticosteroid-treated patients with chronic active hepatitis

To determine whether microcrystalline hydroxyapatite compound (MCHC) could reduce bone loss or its consequences in patients with chronic active hepatitis (CAH) on corticosteroid therapy, a controlled trial was conducted in 36 such patients over a period of 2 years. Both skeletal symptoms (back pain) and fractures were uncommon during the trial period but both showed non-significant differences in favour of the MCHC group and biochemical investigations were suggestive of a reduction in parathyroid over-activity. Continued reduction in bone mineral content of the radius (photon absorptiometry) was halted in those receiving MCHC and iliac crest bone biopsy showed a non-significant increase in trabecular bone volume. The fall in iliac crest cortical plate thickness was significantly less (P less than 0.025) in the MCHC group and the results overall were consistent with a beneficial effect from MCHC in corticosteroid-induced osteoporosis. Stellon A, Davies A, Webb A, Williams R. *Postgrad Med J.* 1985 Sep;61(719):791-6.

Clinical trial of microcrystalline hydroxyapatite compound ('Ossopan') in the prevention of osteoporosis due to corticosteroid therapy

A controlled clinical trial was carried out in 40 patients at risk of osteoporosis because of long-term treatment with prednisolone (5 to 20 mg/day) to determine the efficacy and tolerance of microcrystalline hydroxyapatite compound (MCHC) when used to prevent the appearance or progression of osteoporosis: 32 patients were treated with 6 to 8 g MCHC for 12 months and 8 served as an untreated control group. The two groups were well matched as regards age, sex and underlying disease; 37 patients (29 MCHC, 8 control) successfully completed the trial. The majority (68%) of the patients had back pain prior to the trial, the severity of which was graded at 3-monthly intervals. In the MCHC-treated group, there was a dramatic and significant (p less than 0.001) reduction in pain during the trial, almost to the point of its disappearance. Of 19 patients with initial back pain only 2 still reported any pain at all after 12-months' MCHC treatment. In the control group, back pain severity increased during the trial in 3 patients and was unchanged in the fourth. Neither MCHC-treated nor control group patients showed any significant change in standing or stem height during the 12-months' trial period. Both mean cortical thickness and mean metacarpal index figures showed small, insignificant decreases during 12-months' MCHC treatment but much more marked decreases in the control group which, despite the small number of patients, came close to being statistically significant. Pines A, Raafat H, Lynn AH, Whittington J. *Curr Med Res Opin.* 1984;8(10):734-42.
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