

# Abstract

Cardiovasc J Afr. 2008 Mar-Apr;19(2):84-7.

## Effect of calcium lactate supplementation on cholesterol concentration in patients with hyperlipidaemia and previous viral hepatitis: a preliminary report.

Andrykowski G, Chojnowska-Jezierska J, Broncel M, Barylski M, Banach M.

Department of Internal Diseases and Unit of Clinical Pharmacology and Monitored Therapy, Medical University of Lodz, Poland.

**OBJECTIVE:** The aim of the study was to estimate the effect of calcium supplementation on cholesterol concentrations in patients with hyperlipidaemia and previous viral hepatitis.

**METHODS:** The study comprised 43 patients, aged 28 to 82 years (21 with type 2 hyperlipidaemia). The control group included 22 healthy subjects. After four weeks of a hypolipaeamic diet (wash-out period), the patients with type 2 hyperlipidaemia were recruited to a group administered a complex preparation containing 170 mg of calcium lactate and 60 mg of vitamin C (Calcium C, Polfa-Lodz SA, Poland) at a dose of one tablet three times a day.

**RESULTS:** After four weeks of active therapy, the concentration of total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C) and triglycerides (TG) decreased by 4, 6 and 8%, respectively. Statistical significance was obtained for only TC ( $p = 0.03$ ) when comparing the group of patients with hypercholesterolaemia before and after the therapy with the calcium preparation. A statistically insignificant increase of high-density lipoprotein cholesterol (HDL-C) of 1% was observed. Within the four-week period of calcium supplementation at a dose of 510 mg/24 h, the total concentration of calcium decreased by 3%, whereas the concentration of ionised calcium increased by 7%. None of the obtained values was of statistical significance.

**CONCLUSION:** In patients with type 2 hyperlipidaemia and previous viral hepatitis, a four-week supplementation of calcium in a calcium lactate preparation beneficially modified the lipid profile. It statistically significantly decreased the total cholesterol concentration by 4% ( $p = 0.03$ ), did not cause any significant changes in serum calcium concentration, was well tolerated and did not induce any side effects.

PMID: 18516353