Abstract

Introduction: Critical patients present systemic inflammatory process that can be followed by decrease in plasma concentrations of antioxidant vitamins. Objective: The aim of this study was to evaluate the effect of the supplementation of antioxidant vitamins in critical patients and their relation with lipid peroxidation. Methods: 23 patients went on a standard diet (G1) and 11 went on a diet with daily supplementation of 10,000 IU of vitamin A, 400 mg of vitamin E and 600 mg of vitamin C (G2). The APACHE II score was made. Serum concentrations of retinol, -carotene, vitamins C and E, malondialdehyde (MDA) and C-reactive protein was measured before (T0) and on the 8th day after the beginning of the nutritional therapy (T1). The groups had been monitored on T0, T1 and T2, (at discharge or death) on the following parameters: mechanical ventilation; hospitalization days; mortality; infection incidence. Results: Serum concentrations of MDA and vitamin E were significantly lower in G2 after intervention and strong tendency to increase vitamin C. There were not significant differences between the groups regarding the clinical parameters. Conclusions: The doses of vitamin A, C and E that were indicated were effective for the current lipid peroxidation reduction.

Keywords

Key words, Vitamin antioxidant, Malondialdehyde, Critical patient, Lipid peroxidation.