

542 Essential fatty acids and its impacts in patients with acute hepatitis B

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ABSTRACT TITLE: ESSENTIAL FATTY ACIDS AND ITS IMPACTS IN PATIENTS WITH ACUTE HEPATITIS B

The polyunsaturated fatty acids are the most important components of the human diet. Linoleic and linolenic acids are called essential (irreplaceable), because the body can not synthesize them, but must receive them in sufficient amount every day with meals. Different sorts of fatty fish and vegetable oils are the main source of linoleic and linolenic acids. All the patients with hepatitis should follow the diet number 5 during the whole period of hospitalization and convalescence, approximately for 3-6 months. **METHODS:** We examined 51 patients with acute hepatitis B, including 24 with relapse and 4 with chronic hepatitis B. The etiology was confirmed by enzyme immunoassay and polymerase chain reaction. We used the method Gas-Liquid Chromatography to determine the content of fatty acid.

RESULTS: at the peak of the disease there was a significant ($p < 0.05$) decrease of linoleic acid (20.92 ± 1.81 pg/ml), which was (40.75 ± 3.80 pg / ml) comparing with parameters for healthy people. At relapse of hepatitis B this index had a tendency to decrease even more and remained (12.30 ± 3.80 pg / ml) - the level of linoleic acid in these patients was significantly lower at the peak of the hepatitis B, and also lower than in patients in the control group. The test results shows significant decrease of the linolenic acid's level in the blood serum of patients with relapse hepatitis B (0.26 ± 0.02 mg/ml) comparing with index at the peak of the disease (2.37 ± 0.82 mg/ml). The patients with chronic hepatitis B had indexes of linolenic acid, which are significantly lower (0.47 ± 0.19 mg / ml) than at the peak of hepatitis B.

CONCLUSION: In the process of examining the content of linoleic and linolenic acids in the blood serum in patients we found out the probable decrease of these acids in patients at relapse of hepatitis B comparing with those who are at the peak of acute hepatitis B. The patients with chronic hepatitis B had indexes of linoleic and linolenic acids, which are lower than at the peak of hepatitis B.