

Fatty acid composition of liver total lipids in alcoholic patients with and without liver damage

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Alcohol ingestion may promote lipid peroxidation, and the presence of polyunsaturated fatty acids in liver lipids may be essential for the generation of liver damage through this mechanism. The aim of this study is to examine fatty acid composition of liver lipids in chronic alcoholics with and without histological liver damage. A percutaneous liver biopsy was performed to 28 patients hospitalized for treatment of their alcoholism. Liver total lipids were extracted from a portion of the tissue sample and fatty acid composition was measured by gas chromatography. Another piece of the sample was sent for histological study. Six patients had histological cirrhosis or alcoholic hepatitis in their biopsies, the rest of the patients had minimal changes. Patients with liver damage had higher levels of oleic acid and total monoenoic fatty acids, a higher 18:1/18:0 ratio, lower levels of polyunsaturated fatty acids, a lower 20:4/18:2 ratio, and a lower peroxidability index in liver total lipids