

Clinicopathological study in treatment of chronic hepatitis with hyperbaric oxygenation

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Abstract

AIM: To probe into the feasibility and theoretic basis for the treatment of chronic hepatitis with hyperbaric oxygenation (HBO).

METHODS: Sixty cases of chronic hepatitis were randomly distributed into an experimental group ($n = 30$) and a control group ($n = 30$). The experimental group was treated with HBO for 6 courses. The control group was treated with commonly used drugs in clinic for 60 d. The function and blood stream graph of liver were examined

and the liver biopsies were made before and after treatment. The routine paraffin slides of liver tissue were cut, stained with HE, and observed under optical microscope. The ultrathin slides from paraformaldehyde and glutaraldehyde fixed liver tissue were cut, stained with lead citrate, and observed under transmission electric microscope. The HBsAg and HBeAg in the experimental group were detected by the ABC immunohistochemical method before and after treatment.

RESULTS: In the experimental group the ALT, SB, γ -GT, AKP, IgG and IgM in blood ($P < 0.05$) and the degeneration and necrosis of hepatocytes ($P < 0.05$) were remarkably decreased, the mean contractive wave of blood stream in the liver ($P < 0.05$) and the blood stream in the right ramus of janitrix ($P < 0.05$) were significantly increased, and the swelling of mitochondria, the increased lysosomes, the generation of Kupffer's cells, the infiltration of lymphocytes in portal area and the capillary generation were remarkably alleviated ($P < 0.05$), but the fibrosis and fat storing cells did not reduce ($P > 0.05$) in the liver, and the expression of HBsAg and HBeAg in the liver was not lowered ($P < 0.05$) after the treatment with HBO.

CONCLUSION: The treatment with HBO for chronic hepatitis was effective and recommendable.

Key words: Hepatitis/therapy; Hyperbaric oxygenation; Liver cirrhosis; Hepatitis/pathology; Liver/ultrastructure; Immunohistochemistry

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