A COMPARATIVE HISTOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL STUDY OF CHRONIC ALCOHOLIC- AND VIRAL HEPATITIS

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The liver biopsy has long been the gold standard for the evaluation of the state of liver disease in patients with chronic hepatitis. The relatively increased number of biopsies gave the idea of a comparative histological and immunohistochemical examination based, conform our possibilities, on evidence of apoptosis by BAX and BCL2 proteins, on studying the lymphocyte and histiocyte population by LCA, CD3, CD20, CD68, respectively on observation of the biliary vascular lesions by CTK7, and on following the transition of the ITO-cells in myofibroblasts by Desmine and GFAP. We performed our observations in alcoholic, C-, and B-hepatitis in identical number of cases.

Staging liver fibrosis with biopsy, currently is considered necessary in the management of the patients, and in the evaluation of the efficacy of the treatment. Nowadays, the importance of liver biopsies examination was increased by the recognition of the fibrosis as a bidirectional and dynamic process. This raised the possibility of its reversibility and the antifibrotic treatment also requires attentive follow-up of the effects by liver biopsies.

Armed with the knowledge that fibrosis regression can indeed be achieved with treatment, monitoring the fine variation of the dynamics of this lesion is now essential, and could be assessed with quantitative digital image analysis, method evaluated in this study. Our retrospective study consisted of a review of percutaneous liver biopsy to determine the discriminative reliability of the subjective semiquantitative assessment of fibrosis against objective digital image measurement by image analysis.

Apoptosis is modulated by expression of virus proteins and alcohol derivates. The expression of the two apoptotic proteins was apparent in both of hepatocytes and inflammatory cells, sinusoidal epithelial cells and cholangiocytes.
Inflamatory infiltrate present in a needle biopsy specimen is evidence of immunological processes in situ, as a reaction to viral protein expression, or to toxine induced dysregulated cytokine metabolism in alcoolic liver disease. The immunological mecanism insufficient for the full eradicaction of viruses are responsible for liver damage of viral infection. Quantitative immunohistochemical analysis of lymphocytes, and histiocytes revealed increased numbers both of T cells and histiocytes.

Ductular reactions, composed of small and apparently proliferating cholangiocytes in the portal region, are detected in chronic liver injury. The cholangiocytes acquire phenotypic behaviors, (CK7 positivity) not observed in the noninjured state. Ductular cholangiocytes may represent a hepatic progenitor cell population capable of differentiating into fibrogenetic cell types in repons to liver injury, by epithelial-mesenchimal transition pathway.

Personal references:


