Ultrasonography changes of the liver of patients infected with hepatitis C met in the Foundation of Tropical Medicine of Amazonas

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Background: 50% to 85% of the patients infected by hepatitis C virus will develop a chronic infection, 20% of them will suffer from cirrhosis and 1% to 4% will develop hepatocellular carcinoma. Morfologic and hemodynamic changes which occur in the liver and in the portal system can be evaluated by Doppler ultrasonography at an early stage and in a non-invasive way.The main purpose of this paper was to study alterations detected by ultrasonography examinations in hepatitis C patients assisted at Fundação de Medicina Tropical do Amazonas.

Methods: In an 8-month period, 50 patients anti-HCV positive whose ages ranged from 18 to 69 were submitted to Doppler ultrasonography examinations.

Results: Most of the patients were males (74%) at an average age of 47,1. Morfologic alterations were detected, such as increase of the volume of the liver (12%) mainly in the left liver lobe, increase of liver ecogenicity (24%), esplenomegaly (14%) and increase of ecogenicity and gallbladder wall thicknen (4%).

Conclusion: Hemodynamic alterations were noticed, mostly a reduction on the portal vein velocity (26%), alterations on the congestion index (12%), on the vascular hepatic index (16%) and impedance of hepatic and splanchinic arterial index.

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Detection of acute HCV infection among different risk groups

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Background: To investigate acute HCV infection from the very first days of the infection among blood donors, injecting drug users (IDUs), health care workers and persons who had first life time sexual intercourse with the chronic HCV infected persons in orders to asses clinical laboratory variants of infection, viral replication kinetic, disease outcome.

Methods: Study was performed among ELISA negative persons in four groups: 7500 blood donors, 3200 IDUs, 70 exposed health care workers and 45 persons who had first life time sexual intercourse with the chronic HCV infected genotyped by line probe assay (Innolipa, Versant, Bayer) according to the manufacturer's instructions. The results were analyzed by age, sex, duration of infection, modes of transmission and other variables.

Results: Total of 21 patients with acute HCV infection were identified: 7 from blood donors, 9 from IDUs, 1 from health care workers and 4 from persons who had first life time sexual intercourse with the chronic HCV infected patients. All HCV RNA positive persons revealed within the study were followed on viral load dynamic at detection moment and at 2, 4 and 8 weeks and after 3 and 6 months from their possible exposure. Among them: 5 were symptomatic and 16 asymptomatic. Among 21 subjects: 10 had genotype - 1b, 5 - 2a/2c and 6 - 3a. Out of 21 patients 7 cleared the virus (5 were symptomatic: 1 - genotype 1b, 2 - genotype 2a/2c, 2 - genotype 3a, and 2 asymptomatic: 1 - genotype 1b, 1 - genotype 3a), while 14 developed chronic infection. In all patients viremia increased rapidly and reached a peak by week 4. After week 10 the viremia rapidly decreased. It became either undetectable by weeks 16-18 (viral clea rance), or virus was not eliminated (chronic infection).

Conclusion: We found that HCV viral clearance was correlated with high viral titers, symptomatic form of disease and sexually transmitted HCV infection in female subjects. Study revealed no correlations between viral genotype and viral clearance rates.

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Efficacy of 96 weeks adefovir dipivoxil treatment in HBeAg positive chronic hepatitis B patients with various baseline biochemical levels

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Background: Adefovir dipivoxil (ADV) has shown efficacy and safety in a broad range of populations with chronic hepatitis B over 48 to 96 weeks. This study reports the 96-week long-term efficacy data with ADV treatment in nucleoside-naive HBeAg-positive chronic hepatitis B patients with various baseline biochemical levels.

Methods: Ninety-eight HBeAg-positive patients who had never received nucleoside treatment received 96-week ADV 10 mg/d therapy. All patients had serum level of HBV load over 105 copies/ml and increased serum alanine aminotransferase (ALT) level. Based on serum ALT levels at baseline, all patients were divided into two groups, A (48 patients with serum ALT level less than 200 U/L) and B (50 patients with ALT level more than 200 U/L). Serum HBV load was measured with quantitative real-time-PCR. ALT activity, HBeAg, anti-HBeantibodies, HBV-DNA level in serum were evaluated at baseline, week 12, 24, 48 and 96 during therapy.