

Anti smooth muscle antibodies (ASMA) and tumor necrosis factor (TNF) in Iraqi patients infected with hepatitis C virus

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Background: Hepatitis C virus (HCV) is a serious infectious disease that can cause lifelong infection. Infection with chronic hepatitis C virus (HCV) can lead to autoimmune hepatitis (AIH) in a minority of patients. A genetic predisposition to autoimmune hepatitis from medication may lead to appearance of serum autoimmune antibodies especially anti smooth muscle antibodies (ASMA). Viral infection induces tumor necrosis factor (TNF-alpha) production in hepatocytes. These findings suggest that both parameters may have an important role in the patho-physiology and drug resistance of human liver diseases induced by viruses. **Aim:** The aim of the presents study was to evaluate the role of the immunoendocrine system in the pathogenesis of the disease, by measuring serum TNF and antismoothmuscle antibodies (ASMA). **Subject and methods:** Sixty- one chronic hepatitis C patients were consequently selected from the Medical city, Gastrointestinal Hospital in Baghdad, Iraq, during the period from July 2014 to September 2014, their median age was 34.8 year, 29 of them were males and 32 were females. All patients were diagnosed having positive for HCV RNA by means of polymerase chain reaction. The study also included twenty apparently healthy adult ages and sex matched considered as controls, which were negatively screened with hepatitis C virus. Peripheral blood sample of 2 ml was aspirated using disposal syringes. Samples were collected between (9.00a.m12.00p.m.). The blood was allowed to clot in plain tube for 30-45 minutes at room temperature. Sera were obtained by centrifugation of the collected blood and then stored in plain tubes at - 20°C. ELISA method was used to measure serum TNF, while ASMA was measured by indirect immunofluorescent assay. **Results:** The results of this study showed an increase in mean value of serum TNF in chronic hepatitis C patients accompanied with a 65% increase in ASMS. Significant correlations were found between both parameters studied. **Conclusions:** Chronic hepatitis C is associated with an immunological abnormality. Results obtained might shed a light on the

type of therapy and drug of choice when managing the disease.