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The immune response of prolactin and the induction of Tumor Necrosis Factor (TNF) in Iraqi patients infected with hepatitis C virus

Hedef Dhafir El-Yassin[1] and **Rana A Hadi**[2]
[1]University of Baghdad, Iraq
[2]Iraqi Board for Medical Specialization in Pathology/Clinical Chemistry, Iraq

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. Viral infection induces tumor necrosis factor (TNF-alpha) production in hepatocytes. On the other hand prolactin which is an endocrinal hormone acts as a cytokine and is also involved in immune responses. These findings suggest that both parameters may have an important role in the patho-physiology of human liver diseases induced by viruses.

Aim: The aim of the presents study was evaluate the role of the immunoendocrine system in the pathogenesis of the disease, by measuring serum prolactin and tumor necrosis factor-alpha.

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 age 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.m-12.00p.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 (TNF and Prolactin)

Results: The results of this study showed an increase in mean value of both TNF and prolactin hormone in chronic hepatitis C patients. However no significant correlations were found between both parameters studied.

Conclusions: Chronic hepatitis C is associated with an immunological abnormality mainly represented by tumor necrosis factor-alpha and prolactine. This might shed a light of the type of therapy and drug of choice when managing the disease.

Notes: