The significance of multiple drug transport protein p170 and tumor suppressor gene p53 in cancer liver

Eman Saad Omar

Cytokines mediate the body’s response to infection andinflammation. Tumor necrosis factor alpha. a monocytemacrophage derived cytokine. was initially identified because ofits ability to lyse certain malignant cells. TNF-a • is a majorproduct of activated macrophages, including Kuppfer cells. andhas a variety of effects on the immune system includingrecruitment of immune cells to sites of inflammation. activationof lymphoid cells and induction of other cytokines.Tumor necrosis factor-alpha. causes a wide variety ofsystemic effects such as fever. anorexia. muscle wasting andhyperlipidemia. Recent studies have demonstrated that TNF-uhas a variety of effectson neoplastic and normal cells. The closerelationship between the septic state and coagulationabnormalities and hemorrhagicnature of lesion in the tumor bedinduced by TNF-u which. also. stimulates the production ofacute-phase proteins and enhances amino acid uptake byhepatocytes.Increased production of TNF-u by monocyte/macrophagehas been observed in patients with a variety of liver diseasesincluding cirrhosis. alcoholichepatitis. bilharzial hepatic fibrosisand chronic active hepatitis. The liver represents an importantsite of synthesis and also a major clearance organ for severalcytokines. Many biological effects to be mediated byinflammatory cytokines such as fever, malaise, cachexia, andcholestasis are observed in chronic liver disease.The present study was conducted on 146 subjects, 116with different chronic liver deases and 30 healthy controls. Allsubjects were chosen and selected to fit one of the followinggroups:1} Normal control.2} Chronic active hepatitis.3} Chronic perststant hepatitis.4} Cirrhosis.5} Bilharzial hepatic fibrosis.All subjects were performed to the followinginvestigations :1} Clinical examination.2} Abdominalultrasonography.3} Liverbiopsy.4} Liver function tests.5} Total and differential leukocytic counts.6} Viral markers (HBsAg,RBc Ab and Anti-RCV).7} Auto-antibodies (ANA,ASMA,and AMA).All subjects included in our study has been studied to assesstheir serum levels of the followingparameters:l} Tumour necrosis factor-a2} Interleukin -Ill.3} Interleukin-64} C-Reactive protein.serum levels of the proinflammatory cytokines TNF-a. ILIll.and IL-6 are significantly elevated in patients with chronicliver diseases. CRP. a key acute-phase protein mainly controlledby IL-6. -was also increased in all patient groups compared tocontrol. serum levels of TNF a.IL-ll1.IL-6. and CRP in cirrhoticgroup where elevated compared to other groups.The serum levels of cytokines and CRP were Significantlyelevated in patients

with decompensated ctrhosts than withcompensated and in patients with severe chronic activehepatitis than with mild degree.Good positive correlation between cytokine /CRP andASf/ALT was found in patients with chronic active hepatitis anda negative correlations with prothrombin time and serumalbumin in patients with cirrhosis and hepatic fibrosis.Total serum bilirubin showed positive correlation with TNFa.IL-111. IL-6 and CRPin cirrhotic group of patients. There are a.good correlation among cytokines and between cytokines andCRPin all patient groups.Wecan concluded that serum levels of TNF-a.ILlll. IL-6andCRP were elevated in patients with chronic liver diseases.Endogenous cytokine patterns in chronic liver diseases werestage dependent and only marginally affected by the type ofunderlying disease. Elevated concentrations of cytokinesrepresent a characteristic feature of -chronic liver diseasesregardless of underlying etiology.This and the apparent stage dependency suggest thatenhanced endogenous cytokines levels represent a consequenceof liver dysfunction rather than of inflammatorydiseases.