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Serum prolidase could be a marker for fibrosis/cirrhosis?

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INTRODUCTION: Prolidase is an enzyme that have an important functions in collagen metabolism and matrix renewal. Long term ongoing inflammatory infiltration in the liver results developing excessive accumulation of connective tissue and fibrosis, this situation is resulting cirrhosis of the liver. This study aims to evaluate serum prolidase levels in cirrhotic patients.

METHODS: Between January 2013 and December 2014 patient who were aplied gastroenterology clinics and diagnosed cirrhosis with clinical, radiological and / or biopsy were taken the study. These patients medical history, physical examination, detailed laboratory and radiological assessments were made and 1 tube of blood taken from each patient were stored at -85 degrees. The patients who detected ascites were accepted decompensated cirrhosis. The patients and the control group prolidase levels were measured by ELISA method.

RESULTS: The study enrolled 97 patients with cirrhosis and 51 healthy controls. 43 patient (%44.3) were compansed cirrhosis, 54 patient (%55.7) were decompensated cirrhosis. The mean age of all patients with cirrhosis was 53.98±15.67 year (19-89), in compensated cirrhosis group 50.74 ± 15.94 (19-85), in decompensated cirrhosis group 56.56±15.10 (19-89), in the control group 44.75 ± 11.46 (18-72), respectively. 29 of patient (67.4%) with compensated cirrhosis, 28 of patients (51.8) with decompensated cirrhosis,18 patients(35.2%) of the control group were male. Serum prolidase levels were significantly lower in all cirrhotic patients compared to the control group ($p<0.01$). Prolidase levels of patients with decompensated cirrhosis were significantly lower compared to the control group ($p <0.01$), whereas no difference was observed in the compensated cirrhosis compared to control group.

CONCLUSION: In the patients with advanced stage cirrhosis, accumulation of connective tissue and severity of fibrosis are increasing and prolidase level decreases. Prolidase enzyme levels can be used as serum markers in advanced stages cirrhotic patients.

Keywords: cirrhosis, prolidase, decompentation

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