

67. THE ROLE OF INFLAMMATORY MARKERS IN EARLY DETECTION OF INFECTION AMONG PATIENTS WITH LIVER CIRRHOSIS

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Introduction. Liver cirrhosis yearly causes 1.2 million deaths worldwide, ranking as the 14th leading cause of death in the world and 10th and in the most developed countries. High susceptibility to infections along with a significant risk for infection-related mortality justifies the description of liver cirrhosis as the world's most common immunodeficiency syndrome. The infections are among the most common triggers of the acute-on-chronic liver failure syndrome, which is the most common direct cause of death in patients with decompensated cirrhosis. An early identification of the bacterial infection increases the treatment success rate. The diagnosis of bacterial infection among cirrhotic patients is difficult, because of the absence of classical signs such as fever or an increase of white blood cell count. Up to 30-60% of hospitalized patients may have a bacterial infection. The most common infections in cirrhosis are Spontaneous Bacterial Peritonitis (SBP, 25%-31%) followed by Urinary Tract Infection (UTI, 20%-25%), Pneumonia (15%-21%), Bacteraemia (12%) and Cellulitis (11%). We aimed to study the patient characteristics with liver cirrhosis and bacterial infection as well as the role of inflammatory markers in early detection of the infection.

Aim of study. Identification of clinical aspects in patients with liver cirrhosis associated with community acquired bacterial infection.

Methods and materials. All adult cirrhosis patients admitted to the Clinical Republican Hospital "Timofei Moşneaga", within the period 01.01.2020-31.12.2021 were consecutively evaluated. We collected data from 60 hospitalized patients with cirrhosis. A comparison between data shown by patients with and without associated infections was carried out. We obtained clinical and paraclinical dates in the first days of hospitalization.

Results. Regarding the liver cirrhosis associated infections: 20 patients (30%) were diagnosed with community acquired infections, of which 14 were patients with urinary tract infection (70%), 6 patients with pneumonia (30%) and 6 patients with spontaneous bacterial peritonitis (30%). 14 out of 20 patients were diagnosed with only one infection whereas 6 patients had mixed infections. According to the Child Pugh Class of Liver Cirrhosis: Class C was in 70% of those with infection versus 25% in patients without infections. The average value of the MELD-Na score was 20 points for those with infections and 18.2 points for those without infections. Of those with infections, 30% had fever, 10% had chills, 100% in both groups presented signs of physical asthenia. The cholestatic syndrome was more pronounced in patients with infections, with the average total bilirubin being 71 µmol/l in those with infections and 33 µmol/l in those without infections. The average fibrinogen values were 1.84 g/l in those with associated infections and 2.26 g/l in those without infections. Hepatorenal syndrome was more pronounced in patients with associated infections, with the average value of prothrombin being 51% in those with infection and 63% in patients without infection respectively. The average value of albumin was 23 g/l in those with infections and 31 g/l in those without infections. Leukocytosis was detected in only 30% of cases in those with associated infections. ESR had an abnormal value in 60% of cases in patients with infections and in 30% of cases in patients without infections, the average value of ESR being 25 mm/h in those with infections versus 17 mm/h in those without infections. C-reactive protein was above the norm in 90% of patients with associated infections, whereas in patients without infections it was detected in only 15%. The average value of C-reactive protein was 29.89 mg/dl in those with associated infections and 11.2 mg/dl in those without infection respectively.

Conclusion. Patients with decompensated liver cirrhosis are prone to the association of community acquired infections. C-reactive protein and ESR are highly sensitive inflammatory markers in the early detection of community acquired infections, while leukocyte levels are not informative in the detection of inflammatory syndrome in patients with liver cirrhosis.