

DIAGNOSTIC VALUE OF PRESEPSIN IN CIRRHOTIC PATIENTS

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Introduction: The natural course of chronic liver disease is often complicated by acute episodes of potentially reversible decompensation, triggered by a precipitating event such as an infection. Presepsin (sCD14) has been identified as a protein whose levels increase specifically in the blood of patients with bacterial infection. Pathfast Assay System (PAS) is able to detect the levels of sCD14. In this study, we evaluated the clinical performance of PAS and its usefulness in the early diagnosis of bacterial infection in cirrhotic patients.

Materials: Twenty-five patients with were enrolled in this study. Mean age of patients was 49.5 years, 12 female and 13 male. The heparinized whole blood for PAS was used in the evaluation of bacterial infection [T0]. The PAS was repeated after 48h [T1]; at 96h [T2]; at 144h [T3] than at 15 days [T4] for monitoring the clinical responses to therapeutic interventions. Blood cultures were performed in all patients at moment that PAS test was performed. The assay time was 15 min using a sample volume of 100 ml. A value >377 pg/mL was considered positive as indicated by manufacturers.

Results: Sixteen patients resulted positive to PAS. The mean sCD14 level was 1854±1744 pg/mL. Microbiological findings confirmed the presence of bacterial infections within 72±4.8h from enrolment in all 16 positive patients. Presepsin level at [T1], [T2] remained stable in five patients. These 5 patients (31%) did not respond to empiric antibiotic treatment and after antibiogramme results, the antibiotic therapy was modified. When the PAS was performed, 47% of patients no showed signs or symptoms of bacterial infection.

Conclusions: Early diagnosis is essential to improving the results of treatment of infections in particular in cirrhosis where infection represents one of the primary complications that lead to decompensated form. PAS test highlighted a complete sensitivity (100%) in showing the presence of infection in a very short time (15 min), confirmed by the results of positive blood cultures. A greater number of patients is necessary to confirm these data.