

Many studies, suggest that ascitic fluid cultures have low yield with respect to diagnosis and deciding management of patients with ascites. In addition, positive culture and sensitivity results obtained from emergency department have not been shown to result in appropriate adjustment of antibiotic therapy (*Chinnock et al, 2011*), Serum lipopolysaccharide-binding protein (LBP) is increased in a subset of non-infected ascitic cirrhotic patients, a finding previously related to bacterial passage from the gut to the circulation without overt infection (*Chinnock et al, 2009*), some studies showed that the level of serum LBP was significantly higher in cirrhotic ascitic patients with SBP than in the cirrhotic ascitic patients without SBP (*Tang NY, 2012*). The objectives of our work to evaluate the value of serum LBP and ascitic fluid culture in cirrhotic patients assumed to have SBP.

This study included 85 patients who have liver cirrhosis, they were 48 males and 37 females, who were divided into two groups, group A: 50 patients with ascites and group B: 35 ascitic patients assumed to have SBP (presented with abdominal pain, fever, absent bowel sound, diarrhea, unexplained hepatic encephalopathy).

A venous blood sample was withdrawn for measurement of; serum LBP, total serum protein and albumin, kidney and liver function tests, TSH, HBA1c. An ascitic fluid sample for culture (by the conventional methods), polymorphonuclear leukocytes (PMNLs), LDH, total proteins and albumin.

Our results showed that the level of serum LBP was not significantly higher in the ascitic, cirrhotic group with SBP in comparison to the ascitic cirrhotic group without SBP with P value >0.05 , ascitic fluid culture was significant ($p<0.05$) but with low sensitivity (33.3%) in diagnosis of SBP. On the other hand, ascitic PMNLs was of high significance in diagnosis of SBP with $p<0.001$.

We concluded that serum LBP is of low significance in diagnosis of SBP, ascitic fluid culture by the conventional method is significant but of low sensitivity, ascitic PMNLs was highly significant in diagnosis of SBP in cirrhotic patients.

Keywords:

Serum lipopolysaccharide binding protein, Ascitic fluid culture, liver cirrhosis, Ascitis, spontaneous bacterial peritonitis.