

## LETTERS TO THE EDITOR

# Spontaneous bacterial peritonitis: Few additional points

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## Abstract

Spontaneous bacterial peritonitis (SBP) is a treatable complication of decompensated cirrhosis. Coagulopathy with evidence of hyperfibrinolysis or clinically evident disseminated intravascular coagulation precludes paracentesis. Alcoholic hepatitis with fever, leucocytosis and abdominal pain should be evaluated for SBP. Oral ofloxacin is as effective as parenteral cefotaxime in treatment of SBP except for inpatients with vomiting, encephalopathy, or renal failure. Albumin is superior to hydroxyethyl starch in treatment of SBP.

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## TO THE EDITOR

We read with great interest the article "Spontaneous bacterial peritonitis" by Koulaouzidis *et al*<sup>[1]</sup> in March 7, 2009 issue of *World Journal of Gastroenterology*. The review was extensive. However, some points may be useful for the management of patients with spontaneous bacterial peritonitis (SBP).

Serious complications unusually occur in paracentesis, but a subgroup of patients with renal failure should be carefully monitored. Pache *et al*<sup>[2]</sup> observed 9 bleeding complications in their study of 4729 paracentesis patients, which were probably due to qualitative platelet abnormality in 8 patients with renal failure.

Coagulopathy precludes paracentesis only when there is clinically evident hyperfibrinolysis or disseminated intravascular coagulation<sup>[3]</sup>. Ascitic fluid leak post paracentesis can be prevented by inserting a needle along the Z-track and keeping the patient in the right lateral position for a few hours.

Biochemical tests are required for total protein and albumin in each ascitic fluid sample whereas optional tests are required for glucose and lactate dehydrogenase levels<sup>[3]</sup>.

Ascitic fluid culture should be performed before antibiotics are used because even a single dose of antibiotics causes the culture to produce no growth of bacteria in 86% of cases<sup>[4]</sup>.

Patients with alcoholic hepatitis present with fever, leukocytosis and abdominal pain mimicking SBP. An elevated ascitic fluid polymorphonuclear count in these patients is not due to peripheral leukocytosis<sup>[5]</sup> but may represent SBP. Empiric treatment with antibiotics can be discontinued after 48 h if ascitic fluid, blood and urine cultures are negative.

Oral ofloxacin (400 mg, twice a day for an average of 8 d) is as effective as parenteral cefotaxime against SBP when the patients do not have vomiting, shock, grade II (or higher) hepatic encephalopathy or serum creatinine > 3 mg/dL<sup>[6]</sup>.

Sigal *et al*<sup>[7]</sup> have shown in their study that albumin should be used in SBP patients with their serum creatinine > 1 mg/dL, blood urea nitrogen > 30 mg/dL, or total bilirubin > 4 mg/dL, and not used in patients without such indications. Albumin is superior to hydroxyethyl starch in treatment of SBP<sup>[8]</sup>.

Fernández *et al*<sup>[9]</sup> in their randomized trial have shown that daily norfloxacin can prevent SBP and hepatorenal syndrome and has a survival advantage in patients with their ascitic fluid protein < 1.5 gm/dL and at least with one of the following indications, namely serum creatinine ≥ 1.2 mg/dL, blood urea nitrogen ≥ 25 mg/dL, serum sodium ≤ 130 mg/L, Child-Pugh ≥ 9 points, and bilirubin ≥ 3 mg/dL.

Intermittent dosing of double, enforced trimethoprim-sulfamethoxazole (5 doses per week) or ciprofloxacin (single oral dose of 750 mg per week) may be ineffective against resistant flora<sup>[10]</sup>.

In conclusion, proper selection of patients for paracentesis, high index for suspected SBP in alcoholic hepatitis patients and albumin treatment can help the management of SBP.

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