

Spontaneous bacterial peritonitis

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A 38-year-old man with end-stage liver disease secondary to chronic hepatitis C infection, who had been evaluated and listed for a liver transplantation, presented with substantial ascites necessitating several abdominal paracenteses. He had a history of spontaneous bacterial peritonitis, small bowel obstructions, and weight loss. In the 3 years he had been on the waiting list he had several courses of antibiotics for treatment of spontaneous bacterial peritonitis and prophylaxis with daily rifaximin and once-weekly ciprofloxacin. Cultures of the peritoneal ascitic fluid grew multiple bacteria, including *Escherichia coli*, but no fungi.

3 weeks before the liver transplant procedure, abdominal ultrasound and CT scanning showed peritoneal ascites with loculated fluid collections. Laboratory analysis of the peritoneal fluid showed cloudy amber-coloured fluid with 530 nucleated cells per mm³, of which 40% were neutrophils, 28% lymphocytes, and 26% monocytes. Total protein in the peritoneal fluid was 2.6 g/dL (serum total protein 7.6 g/dL), and albumin was <0.5 g/dL (serum albumin 2.4 g/dL). Cytology showed benign mesothelial cells and mixed inflammatory cells. Culture of the ascitic fluid was negative for bacteria and fungi. We decided to proceed with transplantation as there was no sign of active bacterial peritonitis. The patient did not have leucocytosis, fever, nausea, vomiting, or abdominal tenderness.

On opening the abdomen, we found extensive adhesions caused by spontaneous bacterial peritonitis affecting the liver, spleen, intestine, and abdominal cavity (figure), which formed thick fibrin sheets on the organs and in the abdominal cavity. The patient underwent a difficult hepatectomy and subsequent orthotopic liver transplantation using the piggyback technique in October, 2015 (figure). 2 months after the transplant surgery he presented with recurrence of hepatitis C infection, which was successfully treated with ledipasvir-sofosbuvir combination. At last follow-up in July, 2016, he had good liver function and no signs of peritonitis.

Contributors

Both authors cared for the patient and wrote the report. Written consent to publication was obtained.

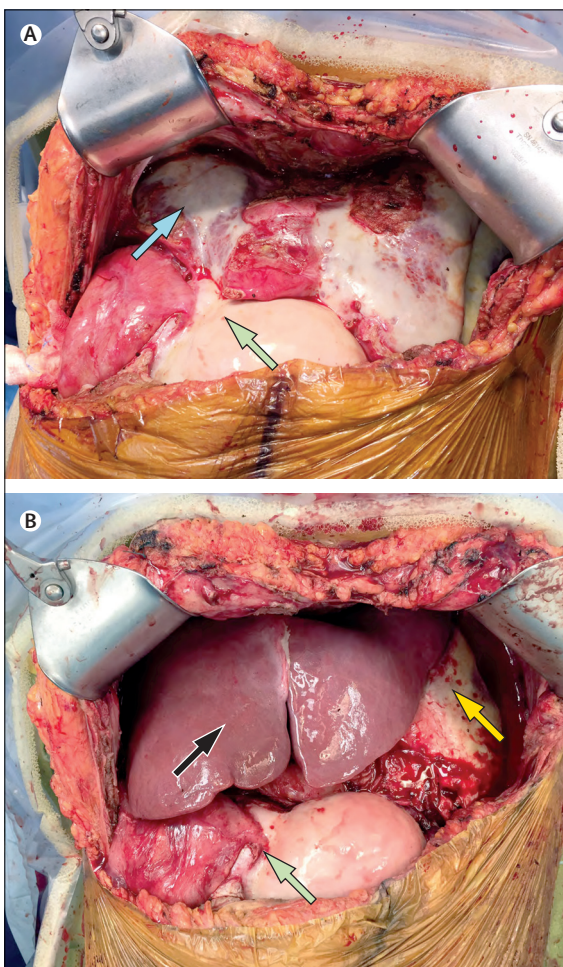


Figure: Spontaneous bacterial peritonitis in patient with end-stage liver disease secondary to chronic hepatitis C infection

Effects of spontaneous bacterial peritonitis seen during liver transplantation. (A) Intestine covered by thick fibrin sheet (green arrow). Blue arrow shows right lobe of the patient's liver. (B) Intestine (green arrow) and spleen (yellow arrow) covered by thick fibrin sheet. Black arrow shows the newly transplanted liver.

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