Umbilical hernia in the cirrhotic patient is frequently seen in the setting of refractory ascites. This article reports a rare case of spontaneous rupture of a recurrent umbilical hernia in a patient with persistent ascites, following an acute increase in intra-abdominal pressure, leading to bowel evisceration. This case highlights a potentially fatal complication of umbilical hernia in the setting of chronic ascites, which was successfully managed with prompt surgical intervention.

INTRODUCTION

The occurrence of umbilical hernias in patients with chronic ascites is not uncommon. The natural history for these hernias is progressive enlargement if left untreated and many of these patients undergo elective repair with synthetic mesh for symptomatic or cosmetic reasons. Also, the sequelae of potential complications, such as bowel incarceration or strangulation, result in greater morbidity and mortality in cirrhotic patients. This case report discusses one of such patients, who presented with eviscerated bowel through a long-standing umbilical hernia and describes the surgical management employed.

CASE REPORT

A 50-year-old Caucasian male with a long-standing history of cirrhosis, secondary to chronic alcohol abuse and hepatitis C infection, presented to the Emergency Department with spontaneous rupture of his small bowel through an existing umbilical hernia (Fig. 1). The patient had a complicated course of liver disease marked by recurrent ascites and hepatic encephalopathy. Two years prior, the patient had his umbilical hernia primarily repaired; however, he developed a recurrence of the umbilical hernia secondary to recurrent and refractory ascites. The patient stated that he suddenly noticed protrusion of bowel through his umbilical skin after a sudden coughing bout several hours prior to presentation. The patient also reported copious drainage of ascitic fluid through the hernia site following the evisceration. He presented to the emergency room dehydrated and with signs of peritonitis. The patient was promptly resuscitated and taken to the operating room. He underwent segmental small bowel resection and biologic mesh repair of the umbilical hernia. Following his surgery, the patient spent 7 days in the ICU after which he was transferred to a medical–surgical floor and subsequently discharged with normal bowel function and in stable condition. He has remained recurrence free several months after.

DISCUSSION

Patients with ascites in the setting of cirrhosis have an ~20% chance of developing an umbilical hernia [1]. In the presence of persistently increased intra-abdominal pressure, points of weakness in the abdominal wall are potential sites of herniation. The linea alba is discontinuous at the umbilicus and thus is one point of weakness. Furthermore, this patient had an albumin level of 1.8 g/dl suggesting chronic nutritional deficits that could potentially lead to weakened abdominal fascia.

Evisceration of small bowel through an existing umbilical hernia is a rare and potentially fatal complication of umbilical hernia in the presence of recurrent ascites. There is a reported case of omental evisceration through an umbilical hernia in a patient with a similar history of cirrhosis and hepatitis C [1]. Similar to our patient, this occurred following an acute increase in intra-abdominal pressure. Evisceration of abdominal contents puts the patient at risk for incarceration, infection and
necrosis. A 2011 study performed by Erasmus University researchers found that surgical repair of an umbilical hernia in a patient with ascites due to cirrhosis is preferable to conservative treatment. The complications of the umbilical hernia appear to be a greater cause of mortality and morbidity than the surgical repair [2].

In summary, small bowel evisceration is a rare but serious and potentially fatal complication of umbilical hernia in cirrhotic patients with refractory ascites. This case is the first-in-litterature depicting spontaneous evisceration of bowel in a cirrhotic patient with a recurrent umbilical hernia. The patient was successfully managed with early surgical intervention.

REFERENCES
1. Esther KC, McElroy S. Spontaneous bowel evisceration in a patient with alcoholic cirrhosis and an umbilical hernia. J Emerg Med 2008;34:41–3.
2. Hasan HE, van Ramshorst GH, de Goede B, Tilanus HW, Metselaar HJ, de Man RA, et al. A prospective study on elective umbilical hernia repair in patients with liver cirrhosis and ascites. Surgery 2011;150:542–6.