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A Rare Case Report of Spontaneous Evisceration of Bowel in an Umbilical Hernia Rupture Patient

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Abstract: ***Umbilical hernia is quite commonly seen in a patient with cirrhosis suffering from massive ascites. Here we a illustrate a rare case of spontaneous rupture of umbilical hernia leading to bowel evisceration in a patient with massive ascites following an acute rise in intra - abdominal pressure. This case highlights a potentially deadly complication of umbilical hernia in the setting of chronic ascites which was successfully treated with immediate surgical intervention.***

Keywords: Umbilical hernia, ascites, evisceration

1. Introduction

Umbilical hernias are a common complication in people with chronic ascites. If left untreated, these hernias have a progressive growth natural history, and many of these patients decide to have them repaired with synthetic mesh for symptomatic or aesthetic purposes. Moreover, in cirrhotic individuals, the consequences of probable complications like intestinal imprisonment or strangling lead to higher morbidity and mortality rates. This case report highlights one of these patients who underwent surgery for a long - standing umbilical hernia and had eviscerated bowel at presentation.

2. Case Report

A 62 year old male with a long standing history of chronic alcoholic liver disease presented to emergency department of MMIMSR with evisceration of bowel through an existing umbilical hernia **(Fig.1).** The patient had a history of lump in the umbilical region for the last 8 years which had been gradually increasing in size. Initially the lump use to reduce spontaneously but for the last 2 months he could not reduce the swelling. 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. Patient mentioned that he used to put the hot water bag over the swelling before going to bed for around 10 min every night for the past 3 months. Patient had no history of trauma to the umbilical area or instrumentation or recent abdominal surgery. However he noticed some ulceration over the surface of lump for past 1 month which was gradually increasing in size with some redness around the surrounding skin. He presented to emergency room dehydrated and with sings of peritonitis. The patient was promptly resuscitated and taken to the operating room. The patient underwent urgent reduction of bowel contents back to peritoneal cavity with umbilical herniorrhaphy without mesh. In view of contamination, mesh was not used to close the defect. Following his surgery, the patient spent 2 days in the ICU after which he was shifted to surgery ward after stabilisation and subsequently discharged with normal bowel function and in stable condition. He has remained recurrence free several months later.

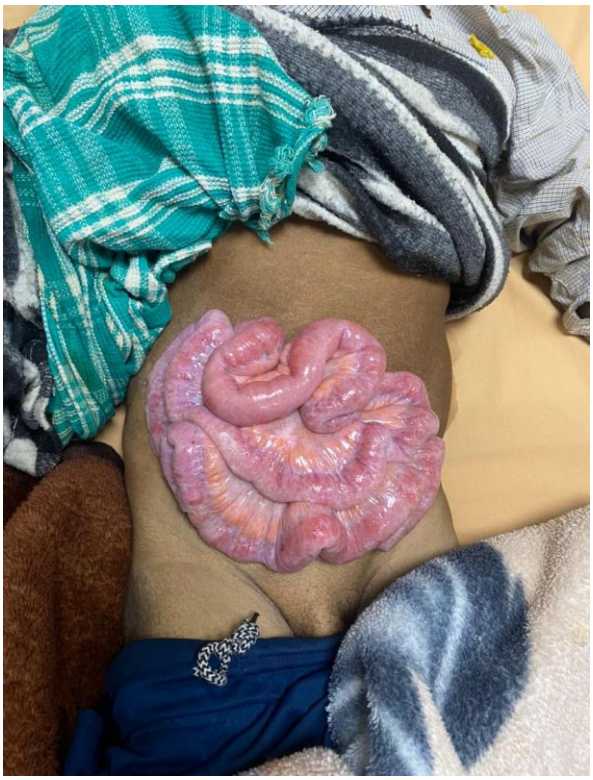

Figure 1

3. Discussion

There have been few reports of rupture of umbilical hernia in the setting of ascites in the patients which have been termed as Flood Syndrome[1 - 4.]

An umbilical hernia has a 20% risk of occurring in patients with ascites and cirrhosis[5]. Dynamic adaptive changes take place in abdominal musculature and fascia in response to a chronically elevated intra - abdominal pressure. These adaptive changes help to maintain the normal functioning of intra - abdominal viscera. Studies have shown that the adaptations are mainly in the form of changes in the muscular components of abdominal cavity[6]. Similarly the

diaphragm has the ability to adapt when subjected to conditions of increasing intra - abdominal pressure. However, it is plausible that a long standing hernia when subjected to repeated hot compressions may lead to thermal injury leading to necrosis of overlying tissue. This when compounded by sudden increase in intra - abdominal pressure as in coughing may have resulted in the rupture of the hernia leading to evisceration of the bowel as seen in our case. Points of weakness in the abdominal wall are possible herniation sites when there is chronically elevated intra - abdominal pressure. One weak spot in the linea alba is where it breaks at the umbilicus. Also, this patient's albumin level of 2.2 g/dl indicated ongoing dietary deficiencies that would eventually impair the abdominal fascia. Evisceration of abdominal contents puts the patient at risk for incarceration, infection and necrosis.

4. Conclusion

In conclusion, in cirrhotic patients with refractory ascites, small bowel evisceration is a rare but significant and potentially deadly consequence of umbilical hernia. While being a benign condition, umbilical hernia can manifest in a complex way that, if untreated, can be fatal. This article emphasises the value of treating umbilical hernias surgically as soon as possible.

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