Giant Abdominal Wall Hernia in a Patient with Cryptogenic Cirrhosis

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ABSTRACT

Abdominal wall hernias are common problems found in patients with cirrhosis because of persistently high intra-abdominal pressure. When abdominal hernias are neglected in such patients, they may become larger and could result in cosmetic problems and pressure effects that are also difficult to treat. We found a voluminous mass in the anterior abdominal wall of a 40-year-old patient with cirrhosis. The patient was operated on for acute cholecystitis 12 years earlier. Abdominal computed tomography revealed an epigastric hernia presenting as a grossly distended hernia sac filled with serous fluid and intestinal loops. The patient was not operated on and was discharged with sodium-restricted diet and diuretics.

KEYWORDS

Abdominal wall hernias; Cryptogenic cirrhosis; High intra-abdominal pressure

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INTRODUCTION

Abdominal wall hernias are common problems found in patients with cirrhosis because of persistently high intra-abdominal pressure. When abdominal hernias are neglected in such patients, they may become larger and could result in cosmetic problems and pressure effects that are also difficult to treat.

CASE REPORT

A 40-year-old woman with a history of cryptogenic cirrhosis presented with abdominal pain, orthopnea, and back pain. She was admitted to the hospital with the clinical impression of complicated incisional hernia. She reported diffuse muscle pain, back stiffness, and back pain. The patient had undergone open cholecystectomy 12 years earlier. Few months after surgery she noticed a small reducible hernia in the mid upper abdominal region. The abdominal hernia increased in size overtime without any pain. However, the huge painless mass made her unable to do her daily activities.

On examination, she was afebrile. The blood pressure was 103/71 mm Hg, the pulse rate was 98 beats per minute, and the respiratory rate was 20 breaths per minute. Abdominal examination showed a giant, irregular, non-tender, soft, fluctuant, and irreducible mass extending from the epigastrium to hypogastrium (figures 1,2). The overlying skin appeared normal. The spleen was not palpable and the liver could not be assessed due to the masses. Abdominal ultrasonography and

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Fig. 1: Giant abdominal wall hernia in a patient with cryptogenic cirrhosis

Fig. 2: Site of incision for prior open cholecystectomy

computed tomography revealed a large amount of ascites and intestinal loops inside the abdominal incisional hernia. The patient was not operated on and treatment for ascites was optimized with a low sodium intake and increased diuretic doses.

DISCUSSION

Abdominal wall hernias in patients with cirrhosis occur almost exclusively in the presence of long standing ascites. The resulting increase in intra-abdominal pressure trying to push through the muscle wasted abdominal wall can lead to hernia development. The influence of cirrhotic ascites on the development of other types of abdominal wall hernias is not as prominent.[1] One possible explanation is the recanalization of umbilical veins, which leads to abdominal wall weakening and herniation at umbilicus.[2]

The hernia sac usually continues to exist and grow in an uncomplicated course but can be portentous in a minority of cirrhotic patients. These uncommon life-threatening complications include strangulation (precipitated by rapid ascitic fluid removal) and cutaneous ulcerations and rupture of the hernia sac.[1] Ustaoglu et al. have reported a cirrhotic patient with repeated bouts of hepatic encephalopathy that was discovered to be precipitated by an incisional hernia causing vomiting, hypokalemia and metabolic alkalosis.[3] There also have been reported cases of umbilical hernia incarceration after medical treatment of massive ascites.[4]

Physical examination usually leads to the diagnosis of an abdominal wall hernia. Computed tomography is a suitable method for assessment of the size, location, and content of incisional hernias.[5]

In patients with liver cirrhosis and ascites, surgical management of abdominal wall hernias leads to a high rate of complications including unacceptable recurrence rates and frequent wound infections, in addition to the increased morbidity and mortality associated with anesthesia and surgery. Urgent surgery is considered only if any of the hernia complications develop but ideally clinicians opt for elective hernia repair after medical optimization.[6,7] If technically feasible, laparoscopic hernia repair in cirrhotic patients is much safer and preferred. The benefits include preservation of large collateral veins on the abdominal wall, non exposure of abdominal viscera, improved absorption of ascites, lower perioperative blood loss and lower postoperative pain, morbidity and recurrence.[8] The rate of recurrence in complicated hernias in cirrhotic patients is also reported to decrease significantly by using a permanent mesh.[9]

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

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