

Herniation of the Left Hepatic Lobe, Unusual Presentation of an Incisional Hernia

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ABSTRACT

Hepatic herniation through an abdominal incisional hernia is an extremely rare phenomenon that has been reported in the medical literature in few case reports. It is associated with complications such as hepatic encephalopathy and Budd-Chiari syndrome. Most cases can be managed conservatively through observation, but many cases require surgical intervention to preserve liver function. Our case is a 61-year-old female who presented with herniation of the left hepatic lobe through an abdominal incisional hernia which was managed surgically.

KEYWORDS: ventral hernia, hepatic hernia, hernia, incisional hernia, hepatic lobe

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INTRODUCTION

Ventral hernia is the progression of abdominal contents through an opening in the abdominal wall. When the hernia occurs through a scar from previous surgery, it is called an incisional hernia, which occurs quite often only behind inguinal hernias, with an incidence of 2-30%. However, herniation of the liver through the abdominal wall is a rare presentation. Few case reports have been reported in the literature.

CASE PRESENTATION

The patient is a 61-year-old female with a history of diabetes and hypertension of 15 years of evolution in medical management, grade II obesity and surgical history of laparoscopic cholecystectomy 4 years ago and 3 cesarean sections. She comes to evaluation for severe pain in the epigastrium and right hypochondrium of 1 week of evolution, accompanied by nausea and vomiting, without changes in

bowel habits, physical examination with pale skin and integuments, abdomen globose, painful on palpation, In the right hypochondrium there was palpable sac of 7 cm indurated, non-reducible, painful, so a CT scan was requested which reported epigastric hernia of 3 centimeters, with content of the left lobe of the liver (Fig 1) (Fig 2). Labs on admission: Leukocytes 9.3, Hemoglobin 12.6, Mean corpuscular volume 94, Mean corpuscular hemoglobin 31, Platelets 256,000, Glucose 205, Creatinine 0.8, Uric acid 5.3, TP 22, TPT 11, Cholesterol 158, Triglycerides 140, Albumin 4.5, Total Bilirubin 0.87, Direct Bilirubin 0.18, TGP 14, TGO 25. So it was programmed as incarcerated incisional hernia. Ventral plasty was performed finding as findings: defect of 3 x 3 centimeters, with a 15 centimeters sac, with content of the left lobe of the liver, incarcerated, not strangulated, hernia content was reduced and proceeded to perform plasty with placement of sublay mesh (retromuscular), fixed with prolene 0, and the defect was closed with continuous surgete.



Fig 1. Abdominal CT scan, sagittal view showing herniation of the left hepatic lobe.

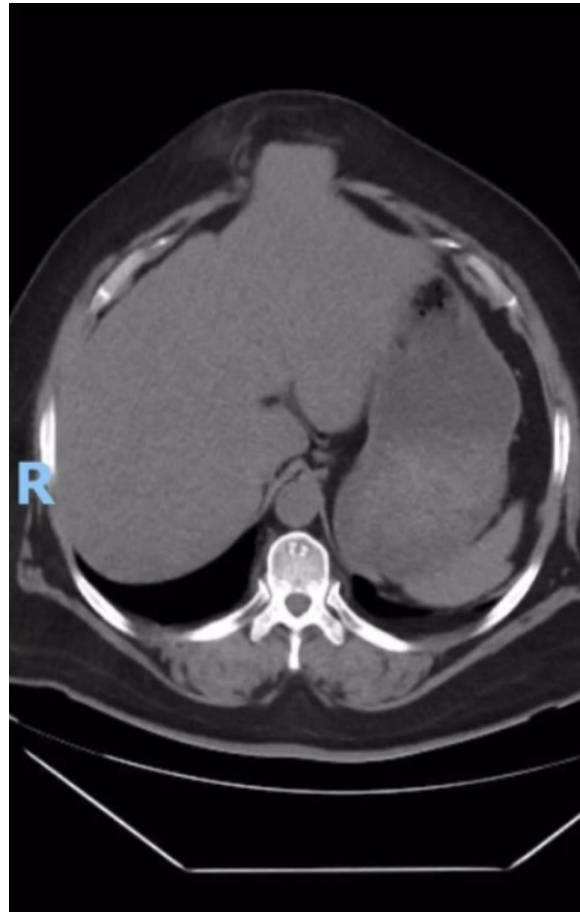


Fig 2. Abdominal CT scan, axial view showing herniation of the left hepatic lobe.

DISCUSSION

Herniation of the liver or its parts through the abdominal wall is a rare phenomenon and there have been few cases reported in the medical literature. Epidemiologic data on liver herniation through the abdominal wall are not available because of its rarity. Reported cases have occurred in association with abdominal incisional hernias, nonalcoholic steatohepatitis, coronary artery bypass graft, omphalocele, or blunt abdominal trauma.

Some case reports consulted as an example: Nikhil Talware et al. reports the case of a 20-year-old male who after presenting trauma with bicycle handlebars presented hepatic hernia. Neelamraju Lakshmi et al. reported four cases secondary to sternotomy. Echo et al. reported a 75-year-old male with ventral herniation of the left hepatic lobe after sternal reconstruction with rectus abdominis muscle flap, managed conservatively due to comorbidities. Warbrick-Smith et al. reported an 81-year-old male with hepatic herniation through an abdominal wall incisional defect, managed conservatively. Eken et al. reported a 77-year-old woman who required closure of a primary defect and an onlay mesh for liver incarceration in an incisional hernia with acute liver failure.

Risk factors associated with the development of a ventral hernia are old age, male gender, obesity, comorbidities such as diabetes, chronic lung disease, malnutrition, smoking, postoperative surgical infections, emergency surgery, increased intra-abdominal pressure and abdominal wall weakness. A theory postulated by Echo et al, suggests that congenital absence of the left or right triangular ligaments of the liver are possible risk factors for hepatic hernias. These structures are responsible for attaching the liver to the retroperitoneum and their absence can lead to anterior herniation of hepatic segments when added to the risk factors mentioned above. In our patient there was a surgical history of laparoscopic cholecystectomy and increased intra-abdominal pressure which led to incisional herniation through the laparoscopic epigastric port.

Presenting symptoms of abdominal hepatic hernia include abdominal pain, nausea, vomiting, jaundice, dyspnea and epigastric swelling. In many of the reported cases it is found incidentally on imaging studies of the abdomen. The clinical consequences of hepatic herniation can be severe and may vary depending on which lobe of the liver is herniated. Herniation of the left hepatic lobe has been associated with incarceration of the liver within the hernial sac which can lead

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to hepatic encephalopathy and hepatic failure. The latter with a mortality of up to 80%. Right hepatic lobe herniation has been associated with Budd-Chiari syndrome with a high morbidity and mortality rate.

The treatment of hepatic hernias is individualized. There are no guidelines that dictate treatment, which can be surgical or non-surgical, with asymptomatic patients with normal liver function tests being candidates for conservative management. Surgical indications are: strangulation causing alteration of liver function, liver failure and cirrhosis. If any of the above complications occur, surgical correction should be sought given the favorable results. Studies have shown that surgical correction of abdominal hernias increases morbidity and mortality, so most patients are candidates for conservative management. However, in the case presented, given the symptomatology and topographic findings of incarceration, it was decided to manage it surgically.

CONCLUSION

In conclusion, hepatic herniation through the abdominal wall is a rare phenomenon, with few case reports in the literature. Clinical consequences include hepatic incarceration, liver failure and Budd-Chiari syndrome. Treatment is individualized to each case according to complications, symptomatology and comorbidities of the patient, either surgical or conservative.

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