



A RARE CASE OF EPIGASTRIC HERNIA WITH LEFT LOBE OF LIVER AS CONTENT

Plastic Surgery

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ABSTRACT

Epigastric hernia are hernias arising through midline raphe (linea alba) anywhere between the xiphoid process and the umbilicus. They begin with a transverse split in linea alba so the defect is elliptical and usually less than 1cm. The hernia usually contains only extraperitoneal fat but rarely any bowel or any visceral organ. Epigastric hernia with liver as content is extremely rare. Here we present such a case of epigastric hernia with left lobe of liver as content in the sac.

KEYWORDS

Ventral hernia, Epigastric hernia, liver, Primary hepatic herniation

INTRODUCTION:

A hernia is an abnormal protrusion of an organ or tissue through an opening in the layer that normally confines it. Ventral hernia term refers to hernias of the anterior abdominal wall. It may be primary (umbilical, epigastric, spigelian, lumbar, traumatic) or secondary (parastomal or incisional). Epigastric hernia is a form of ventral hernia occurring through linea alba. It accounts for 0.4-1.5% of all abdominal wall hernias and usually seen in middle-aged individuals.^(1,2,3)

The hernia usually contains only extra-peritoneal fat, which gradually enlarges, spreading in the subcutaneous plane. When very large they may contain a peritoneal sac, but rarely bowel or intra-abdominal viscera. Herniation of liver through anterior abdominal wall is rare. In adults, it usually occurs as an incisional hernia. Hepatic herniation through anterior abdominal wall without any previous incision at site is extremely rare.

Case Report:

A 65yr old lady came to the surgical OPD of NMCH, Patna with swelling in epigastric region for 1 year and pain for past 2 months. The swelling was initially smaller in size and irreducible.

There was a significant increase in size of swelling for 2 months and it was associated with dull pain. She denied any history of trauma and heavy weight lifting. She had normal bowel and bladder movements and no history of fever or vomiting. She had a history of bilateral tubal ligation 20 years ago.

On examination the general condition of the patient was fair with normal vitals. The skin over the swelling in epigastric region was mildly inflamed with surrounding induration. The swelling was globular in shape with smooth surface, approximately 10cm x 10cm x 4cm in size, warm to touch, irreducible without impulse on coughing and tender.

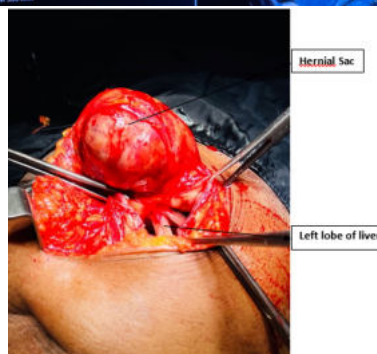
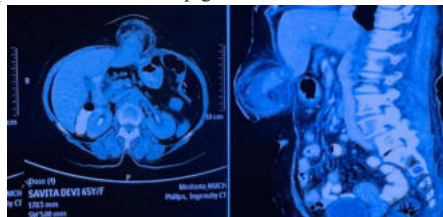
There was no change in the size of swelling on head raising or leg raising test. CECT whole abdomen showed a relatively large hernia with small neck, size of defect measuring 3cm x 2cm. Poor enhancement of left lobe of liver within hernial sac and soft tissue stranding within herniated omental fat with moderate collection was seen. Under general anesthesia, a midline incision was made over the swelling and the large hernia sac was identified.

The sac was dissected and opened revealing omentum and left lobe of liver as content. The segment III of liver was necrosed and therefore resection of the liver was done. Primary anatomical repair of the defect was done using prolene (1) and drain was placed intra-peritoneally in sub-hepatic space. Drain was removed on post-operative day 3. Total stitch removal was done on 10th post-operative day and patient was discharged with a healthy wound.

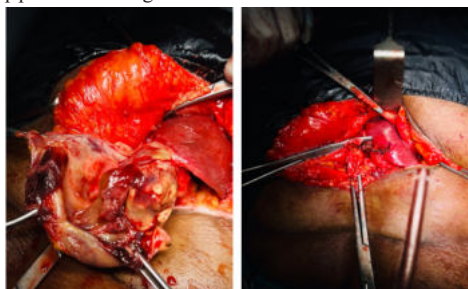
CECT-w/a showing herniation of left lobe of liver through defect in linea alba in axial and sagittal sections.



Pre-op picture of irreducible epigastric hernia



Intra-op picture showing hernial sac and it's content



A. Necrosed segment III of liver.**B. Resection of liver****DISCUSSION**

Primary anterior liver hernia is herniation of the liver through the anterior abdominal wall defect in the absence of a previous abdominal incision. It is exceptionally rare condition, very few cases have been reported thus far^{[4], [5], [6], [7]}. Multiple risk factors of hepatic herniation through the abdominal wall has been described, including obesity, increased intra-abdominal pressure, weak abdominal wall, old age, poor nutrition, smoking and supra-umbilical abdominal surgery.^[8] History of bilateral tubal ligation did not correspond to the site of hernia as it was in lower abdomen.

Congenital absence of the left or right triangular ligaments of the liver, congenital diaphragmatic herniation among children or acquired traumatic diaphragmatic hernia among adults has been described as a possible risk factor of anterior herniation of segments of the liver when coupled with the aforementioned risk factors.^[9] The fact that segment III of liver is mobile makes it vulnerable for herniation, this can be justified by all the reported case of anterior primary liver hernia contained segment III of liver as a content.

Symptoms of abdominal hepatic herniation include epigastric swelling, abdominal pain, nausea, vomiting, jaundice, dyspnea, and confusion^[10]. The complications of hepatic herniation can be severe and vary according to which lobe of the liver is herniated. Herniation of the left hepatic lobe has been associated with incarceration of the liver within the hernia sac that can lead to hepatic encephalopathy and liver failure^[11]. While herniation of the right hepatic lobe has been associated with Budd-Chiari syndrome^[12]. Vascular compromise and portal vein thrombosis in the herniated liver is reported in two cases^[13,14].

CECT is highly sensitive in diagnosis of hepatic herniation and can also rule out any vascular or parenchymal compromise.

The management depends on patients presentation, associated complications like vascular compromise, hepatic injury due to forceful manual reduction, and intra-operative findings. Resection of non-viable segment of liver may be needed as in our case. Hernia was repaired anatomically as moderate collection was present in sac.

CONCLUSION

Primary hepatic herniation through anterior abdominal wall is extremely rare case.

Imaging tests including computed tomography scans (CT scans) and ultrasounds (US) are needed for confirmation. With computed tomography (CT), one may estimate the size and features of a hernia as well as the vascular condition of the parenchyma within the herniated liver. A contrast CT scan is advised to assess for liver herniation. The patient's presentation determines the course of treatment, as does the presence of any complications, such as vascular compromise, a lacerated liver in the herniated section, and intra-operative findings.

Statements & Declarations: The authors declare that the case report is written in compliance with ethical guidelines and they have no competing interests.

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