CASE SNIPPETS

Laparoscopic repair of Morgagni hernia in adult

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Foramen of Morgagni hernias require surgical treatment; laparoscopic repair is another option with lower morbidity. We describe a 35-year-old man with Morgagni hernia treated successfully by laparoscopy. [Indian J Gastroenterol 2001; 20:70]

Key words: Diaphragmatic hernia, laparoscopy

Hernia through the foramen of Morgagni is the rarest form of congenital diaphragmatic hernias. Surgery is indicated for fear of complications even in the absence of symptoms. Reduction of contents, dissection and excision of the sac and repair of the defect form the basis of treatment. Minimal invasive surgery is preferred over conventional surgery because of shorter hospital stay and early return to work. We report a patient with Morgagni hernia, with transverse colon and falciform ligament as contents, who was treated laparoscopically with good result.

A 35-year-old man presented with occasional dull ache in the left iliac fossa and sensation of distension that was relieved with passage of flatus. Abdominal examination was normal. X-ray chest revealed a right para cardiac lesion. Barium studies revealed Morgagni hernia with transverse colon as the content, anterior to the liver. CT scan and magnetic resonance imaging (Fig) confirmed the diagnosis.

Three ports – a 10 mm one at the umbilicus for the telescope, a 12 mm one in the epigastic region, and a 5 mm one in the right lumbar region for manipulation – were used for laparoscopy. Part of the transverse colon that had entered the thorax through the defect was reduced into the abdominal cavity. The defect (approximately 5 cm in diameter) was located anterior to the liver, just to the right of midline. The falciform ligament was entering the thorax. The peritoneum along the edge of the ring was incised with monopolar cautery. The sac was carefully separated from the pericardial fat and the pleura, and partially excised; the falciform ligament was reduced into the peritoneal cavity. Absence of pleural damage was confirmed and the defect was bridged with a polypropylene mesh using a 12-mm endostapler. A 12-French tube drain was placed under the mesh. Full expansion of lung was seen on X-ray on the second postoperative day; the patient was discharged on the fourth day. Two months later, he is free of symptoms.

Traditionally, foramen of Morgagni hernia is repaired by an open abdominal approach. With the advent of endoscopic surgery, successful repair using laparoscopy has been described. Reduction of contents, mobilization of the peritoneal sac and closure or bridging the defect form the principles of treatment. Excision of the sac is an essential component of repair of paraesophageal hernia; this was done in our case. Smaller defects can be closed with sutures. Mesh is used to bridge larger defects; it is anchored using staples or sutures. We used a polypropylene mesh to cover the defect and stapled it to the fascia around the defect. Tension pneumothorax and pneumomediastinum are rare complications. Careful dissection of the peritoneal sac from the pleura prevents this problem.

Transsthoracic repairs are generally advocated when the diagnosis is not made preoperatively or the hernia is incidentally discovered during thoracotomy. Video-assisted thoracic diagnosis and repair has been described.

In summary, laparoscopic repair of Morgagni hernia is a safe procedure with lower morbidity than open surgery.

References


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