

Laparoscopic repair of a spontaneous diaphragmatic hernia

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Background: Spontaneous diaphragmatic hernia without a previously documented history of trauma is uncommon and clinical presentation can often be atypical ranging from an incidental radiological finding to patients presenting with complications.

Case presentation: In this video we present the case of a patient presenting with gastric perforation within a large spontaneous diaphragmatic hernia in the central part of the left hemidiaphragm.

Conclusions: Management of a complicated diaphragmatic hernia could be achieved using laparoscopic approach. The rarity of these hernias means that the operative strategy necessary for safe dissection and repair has to be individualized for each patient.

Keywords: Hernia; spontaneous; diaphragmatic; laparoscopic; mesh

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Spontaneous diaphragmatic hernia without a previously documented history of trauma is uncommon. Most of the cases described involve either subcostal (foramen of Morgagni), or posterior (foramen of Bochdalek defects). Clinical presentation varies in each patient and repair with either transthoracic or transabdominal (open or laparoscopic) approach has been described (1,2).

In this video (*Figure 1*) we present a challenging and rare case of gastric perforation within a large spontaneous diaphragmatic hernia in the central part of the left hemithorax managed laparoscopically using biological mesh.

The video demonstrates the difficulty in diagnosing the diaphragmatic hernia from a paraoesophageal hernia as this was not clear on the preoperative imaging. This was confirmed following identification of the right crus and dissection of the hiatus. Following reduction of the stomach from the hernial sac, the perforated fundus was excised down to healthy tissue. Suture repair of the gastric defect was performed as stapling was not safe due to the thickness and quality of tissue. Due to the large defect size and the



Figure 1 Laparoscopic repair of a spontaneous diaphragmatic hernia (3). Available online: <http://www.asvide.com/articles/945>

induration of the surrounding tissue, a mesh repair was done rather than primary repair. A biological mesh was used in this case as the abdomen was contaminated.

The patient had an uneventful recovery and remains asymptomatic with no clinical or radiological evidence of recurrence at 18 months follow-up.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Informed Consent: Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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