

Letters to the Editor

Acute abdomen after a postraumatic diaphragmatic hernia

Key words: Diaphragmatic hernia. Acute abdomen. Dilaceration. Abdominal trauma.

Dear Editor,

Diaphragmatic post-traumatic hernia is a dilaceration of the diaphragm. Usually it is consequence of a penetrating or not trauma of thoracic or abdominal cavity.

In 5% of the severe thoracoabdominal trauma presents a diaphragm rupture (1). 45-60% of these have a herniation of abdominal organs into the thoracic cavity, overall, colon, stomach, small intestine, spleen, etc. (2).

Clinic presentation could be immediately, early or late (3,4). Respiratory and abdominal signs and symptoms are varied: abdominal pain, abdominal distension, nausea, vomits, dyspnea, etc.

In 90 % of the cases, the diaphragmatic rupture is in the left side of the diaphragm. Possibly, this is because liver acts like a shock absorber on the right side of the diaphragm (1).

Case report

We would like to present a woman of 78. Allergic to cefuroxime and personal history of light deafness, osteoporosis, hiatal hernia and neuropatic pain after a traffic accident.

She comes to emergency service complaining of diffuse abdominal pain during 2 days, with nausea, vomits and distermic sensation. Physical exploration characterizes generalized defence: without peritonism and important hipoventilation in left hemithorax.

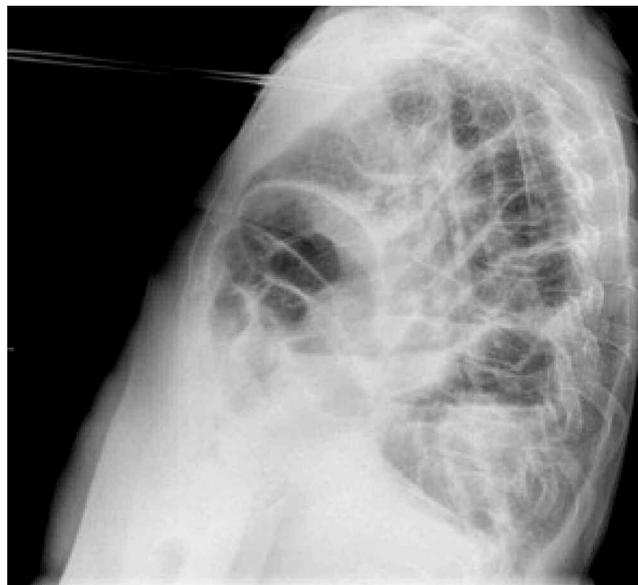


Fig. 1. Chest radiography: small intestines into left hemithorax.

Urgent analysis shows leucocytosis with neutrophilia. In chest an abdomen X- ray we can distinguish the presence of small intestine with air-fluid levels occupying left hemithorax in relation with diaphragmatic hernia (Fig. 1). We complete diagnosis with CT showing small intestine and mesenteric fat without complication. At this point, we decide to perform a deferred urgent operation.

After a supraumbilical laparotomy, we note a total absence of a left hemidiaphragm with the heart laying on the intestinal bundle (Fig. 2). Next step was to reduce hernial content to abdominal cavity after comprobation of intestinal viability permitting the expansion of the left collapsed lung. Closure of pericardium with loose suture of silk number 00 and simple closure of left hemidiaphragm with silk number 2.

Patient evolves without complication. On the thirteenth day after operation, our patient is discharged.

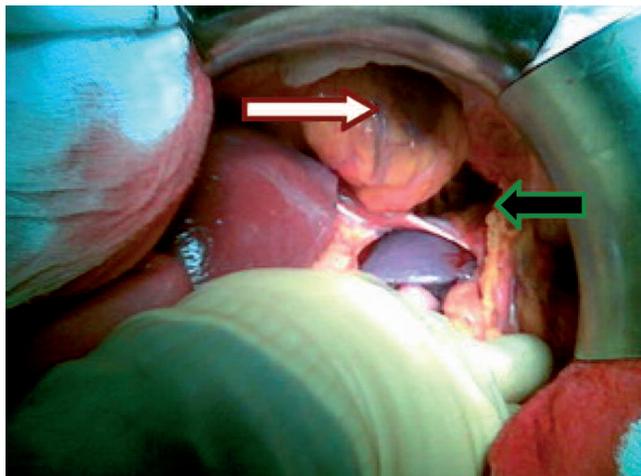


Fig. 2. Black arrow: left diaphragmatic hole; white arrow: absence of pericardium and heart coming into abdominal cavity.

In this particular case, the diaphragmatic hernia was secondary to a high energy politrauma with late clinical-sintomatic debut.

Discussion

Incidences of posttraumatic hernia have risen in the last century. Fundamentally in relation with increasing traffic and industrial accidents (4).

We should suspect this pathology, in patients with abdominal and or thoracic high energy trauma, although they were re-

mote in time, and presents respiratory and or abdominal signs and systems. Differential diagnosis is carried out with acute colecistitis, acute pancreatitis, duodenal ulcer perforation of myocardial infarctation among others. Gold standard imagine diagnostic evidence is the chest X-ray (4). Sometimes it is necessary to do CT, EMR to confirm diagnosis. Treatment is surgical, reducing hernial content, intestinal resection when it is necessarily and closure of hernial defect with non absorbable suture (5).

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References

1. Ospino-Saumett G, Martínez-Barbosa P, Valverde-Robert R. Vólvulo gástrico intratorácico a hernia diafragmática izquierda crónica post-traumática. *Acta Méd Costarrica* 2005; 47(2).
2. Kotsis L, Csekeő A, Orbán K. Latent traumatic diaphragmatic hernia: a surgical challenge. *Chest* 2002; 121(3): 1006.
3. Degiannis E, Levy RD, Sofianos C, Potokar T, Florizoone MGC, Sasia R. Diaphragmatic herniation after penetrating trauma. *Br J Surg* 1996; 83(1): 88-91.
4. Hegarty, MM, Breyer, JV, Angorn, IB, et al. Delayed presentation of traumatic diaphragmatic hernia. *Ann Surg* 1978; 188: 229-33.
5. Díaz-Lara C, Sánchez-Pérez J, Sánchez-Marín A, Sabench-Pereferer F, Buils-Vilalta F, Morandeira-Rivas A, et al. Incarcerated traumatic diaphragmatic hernia as an uncommon cause of acute abdomen. *Cir Esp* 2007; 81(1): 53-4.