Acute abdomen secondary to left paraduodenal hernia: diagnostic by multislice computer tomography

C. L. Fernández-Rey, C. Martínez-Álvarez and P. Concejo-Cutoli

Servicios de Radiodiagnóstico y Cirugía General. Hospital El Bierzo. León. Spain

Internal hernias represent approximately 5.8% of causes of intestinal obstruction (1) which is one of the most important etiologies of acute abdomen. Paraduodenal hernias have traditionally been considered the most frequent type of internal hernias but, during the last decades, the incidence of transmesenteric or transmesocolic hernias derived from new surgical procedures has been increasing (1,2).

Left paraduodenal hernias are congenital and derive from embryonic peritoneal anomalies and associated abnormal intestinal rotation (2). They result from a failure of fusion between the mesentery and posterior parietal peritoneum originating a potential hernial orifice. Jejunal loops may pass through this abnormal orifice prolapsing into a virtual cavity, called Landzert´s fossa, located to the left of the Treitz’s ligament (1,2,3). They are difficult to diagnose in daily practice because of their congenital origin, without medical or surgical relation, and the unspecific physical examination (1,2). Multislice computer tomography (CT) offers high resolution and multiplanar images which may be very demonstrative and characteristic providing a precise and early diagnose, useful for surgical treatment planning (1,2). Early surgical intervention is essential to avoid future complications (3).

Next we report a case of a 39 year-old man without medical or surgical antecedents who presented intense abdominal pain on the left flank, vomits and leukocytosis. A contrast enhanced multislice CT was performed demonstrating important dilatation of proximal jejunal loops with collapsed distal intestine (figure 1). The involved and dilated distal intestine is clustered between the stomach and pancreas, to the left of the Treitz’s ligament (figure 2). In the images we also may observe the displaced mesenteric vases converging at the hernial orifice (figure 2). The diagnosis after the evaluation of the CT was intestinal obstruction secondary to left paraduodenal hernia. The surgery confirms the CT findings showing an internal hernia, which contains dilated jejunal loops, located behind the stomach (figure 3). A section of the hernial orifice was performed with surgical release of the entrapped bowel and the normal intestinal transit was restored.

Fig. 1. Coronal MIP (maximum intensity projection) enhanced CT image shows dilated jejunal loops located to the left of the Treitz’s ligament. Note the collapsed ileum (white arrows) and small amount of free fluid between the dilated loops (*).
ACUTE ABDOMEN SECONDARY TO LEFT PARADUODENAL HERNIA: DIAGNOSTIC BY MULTISLICE COMPUTER TOMOGRAPHY

BIBLIOGRAFÍA


Fig. 2. Axial enhanced CT demonstrates a cluster of dilated jejunal loops located between stomach (CG) and pancreas (P), in the Landzert’s fossa. These findings are diagnostic of left paraduodenal hernia.

Fig. 3. Image during the surgical intervention that evidences the peritoneal hernial sac located behind the stomach.