

Primary Jean Louis Petit's Hernia: A Case Report

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Abstract

Case Report

Lumbar hernia is a rare defect of the abdominal wall. It accounts for 2% of all wall hernias. It is divided in two levels: superior lumbar hernia, also known as Grynfeltt's hernia (GH), and an inferior lumbar hernia or Petit's hernia. They are in most of the cases secondary to trauma or previous surgery but primary lumbar hernias are rare. Computed tomography (CT) is a very useful tool for the diagnosis of lumbar hernia. It can delineate the neck of the hernia and hernial contents. We reported a case of 60 years old male patient with primary Jean Louis Petit's hernia.

Keywords: Lumbar hernia, Jean Louis Petit's hernia, CT scan.

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INTRODUCTION

Lumbar hernias are rare entities among abdominal wall diseases. It develops in the lumbar area, limited superiorly by the inferior border of the 12th rib, inferiorly by the iliac crest, medially by a vertical line joining the lumbar spinous processes and laterally by the free border of the external abdominal oblique muscle, which extends from the 12th rib to the iliac crest. Two forms can be distinguished depending on the localization: the lowest and lateral form is that of Jean-Louis Petit while the highest and medial is that of Grynfelt. They often pose the problem of their diagnosis because of their rarity and their topography. But in case undoubtedly, the imaging represented by the ultrasound and especially the computed tomography helps in the diagnosis [1, 2].

CASE REPORT

60-year-old male patient, with no particular pathological history, admitted for a right lumbar swelling that progressed for 4 years. The physical examination noted apyrexia; a good general condition; a soft, painless swelling, reducible and impulsive to cough.

A computed tomography (CT) scan of the abdomen and pelvis was performed. The CT scan revealed a diastasis that measured up to 3 cm located in the inferior triangle of lumbar area and contained the peritoneal fat. Based on the clinical presentation and the CT findings, the patient was diagnosed with a primary Jean Louis Petit triangle hernia.

The patient undergone lombotomy showing the hernia bag. After dissection of the bag, we push it back and put the mesh forward the muscles and backward the bag in extraperitoneal space. She had good outcomes after surgical procedure.

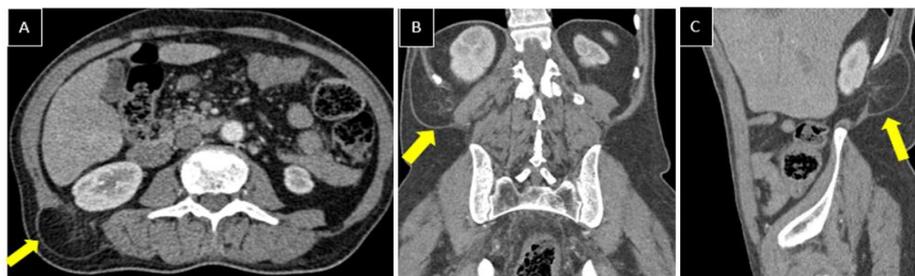


Figure 1: Axial (A), coronal (B) and sagittal (C) contrast-enhanced abdominal CT showing: lumbar hernia containing the peritoneal fat through inferior triangle

DISCUSSION

Lumbar hernias are rare, explaining the small number of published cases. Most authors classically distinguish diffuse lumbar hernias, which are very large and associated with loss of all supporting muscles and fasciae from punched-out defects occurring through two specific areas of weakness: the superior also known as Grynfeltt's hernia and inferior lumbar hernia or Petit's hernia [1, 2, 4, 7].

The triangle of Grynfeltt is formed medially by the quadratus lumborum muscle, laterally by the internal abdominal oblique muscle, and superiorly by the 12th rib. The floor of the superior lumbar triangle is the transversalis fascia and its roof are the external abdominal oblique muscle [2-4].

The triangle of Petit is bounded above and medial with tendon node latissimus dorsi, and laterally and left back edge of the external oblique muscle of the abdomen, extending from the 12th rib, below with the iliac crest, the bottom is the internal oblique transverse abdominal muscles. The weakness of the fascia of this triangle bottom muscles and the defect of the aponeurosis of the latissimus dorsi muscle lead to the inferior lumbar hernia or Jean Louis Petit hernia [2-4].

Jean-Louis Petit's hernia is less frequent than that of Grynfeltt. In general, two out of three lumbar hernias in males [4, 5].

Lumbar hernias are classified as congenital or acquired. Congenital hernias (about 20% of cases) and are thought to result from an arrested or abnormal development of both the costovertebral skeletal and abdominal musculature: lumbocostovertebral syndrome; acquired hernias account for 25–30% of all lumbar hernias and are caused by any surgical procedure performed through a flank incision, as well as from non-operative injuries post-traumatic or infectious states (cold abscesses). Primary lumbar hernias (50–55%) occur non-traumatically, but are favored by predisposing factors, which include increasing age, excessive weight loss or increased intra-abdominal pressure. This subset of hernias shows a predilection for the left side with a left/ right ratio of about 2/1 [6, 7].

The diagnosis of a hernia is essentially clinical. However, the difficulty of the diagnosis of lumbar hernias is explained by their rarity and their localization requires imaging. Computed tomography is still the best exam to show the hernia with all of its features: localization, neck, contents. Although ultrasound can sometimes help in the diagnosis [8-11].

As any hernia, the management of the Jean-Louis Petit hernia is surgical. Two therapeutic approaches could be used: laparoscopy and laparotomy with a superiority of the first. For hernias of small sizes cure without mesh could be used unlike large hernias where the mesh is required to avoid recurrence as in our cases [11].

CONCLUSION

Jean-Louis Petit's hernia is a rare variety of hernia. Its diagnosis is facilitated today by the contribution of the computed tomography. The repair of the hernia with mesh by laparoscopy is currently the gold standard treatment [11].

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