Spontaneous Lumbar Hernia: A Case Report

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Summary

Lumbar hernias are rare, and the diagnosis can be easily missed. Acquired lumbar hernias can occur spontaneously; however, they are increasingly being reported due to trauma or flank surgery. A good history and examination can aid in diagnosis with imaging confirming the condition. Hernia repair can be laparoscopic or through open surgical approaches. We report a case of primary spontaneous lumbar hernia which was managed by an open approach to close the defect with retromuscular mesh placement.

Keywords: Lumbar hernia, Case report, Open repair of lumbar hernias

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Introduction

Lumbar hernias are a rare form of abdominal wall conditions, with only about 300 cases being reported in literature, according to Moreno-Egea et al. (1). The condition was first suggested by P. Barbette in 1672, and the first case was published by R.J.C. Garangeot in 1731 (1).

They can occur anywhere within the lumbar region which is bordered by the 12th rib superiorly, the iliac crest inferiorly, the paraspinous muscles medially, and the external oblique muscle laterally. Two potential spaces have been identified within the lumbar area where the hernia can occur: the superior lumbar triangle (of Grynfeltt–Lesshaft) and the inferior lumbar triangle (of Petit). The superior area is an inverted triangle bordered by the 12th rib, erector spinae, and the posterior border of the internal oblique muscle. The inferior lumbar triangle is bounded by the iliac crest, the posterior border of the external oblique, and the anterior border of the latissimus dorsi (2). Studies have shown that hernias are more common in the superior lumbar triangle (2).

Lumbar hernias are classified as congenital and acquired, with the latter being more common. The acquired lumbar hernias can either be primary/spontaneous or secondary following flank surgery, trauma, or infections (2). Current trends show an increase in secondarily acquired hernias due to the increasing number of flank surgeries and trauma, with primary spontaneous cases remaining rare.

Case presentation

A 71-year-old man presented at the surgical outpatient clinic with complaints of a right lumbar swelling and pain for 6 weeks. He reported that the swelling was of insidious onset but gradually increased in size. It would however, reduce on lying on the left side and increase on coughing.

Initially, the pain was dull, mild, and non-radiating but the severity increased progressively, prompting the patient to seek medical intervention.

The patient is a smoker with 53 pack-years and admiited having a chronic, productive cough. He has no prior

history of trauma, fall, flank surgery, or routinely lifting heavy loads. Further enquiry did not reveal any changes in bowel or bladder movements.

Figure 1. Defect visible through the superior lumbar triangle.

Clinical examination revealed a fit, healthy-looking elderly man with a right lumbar mass measuring 8cm × 6cm, just below the 12th rib (Figure 1). The mass was soft, on-tender, reducible, with smooth margins and a positive cough impulse. Auscultation revealed bowel sounds over the swelling. Examination of the other systems did not reveal any abnormalities.

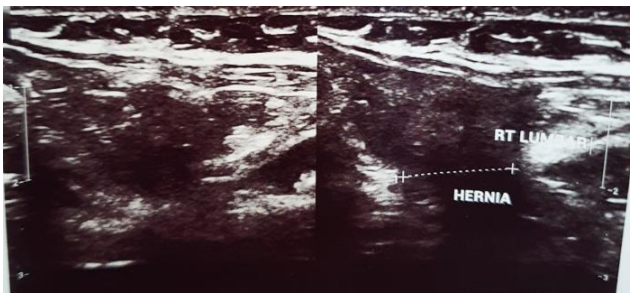

Figure 2. Ultrasound image showing the defect.

Abdominal ultrasound confirmed the diagnosis of a right lumbar reducible hernia (Figure 2), and the patient was scheduled for an elective open hernia repair.

With the patient in a left lateral position, the swelling was noted to reduce, leaving a small palpable hernial ring measuring 2cm × 2cm. A subcostal incision was made, and the oblique muscles split to reveal a hernia sac in the superior lumbar triangle containing preperitoneal fat attached to the transversus abdominis and fascia transversalis.

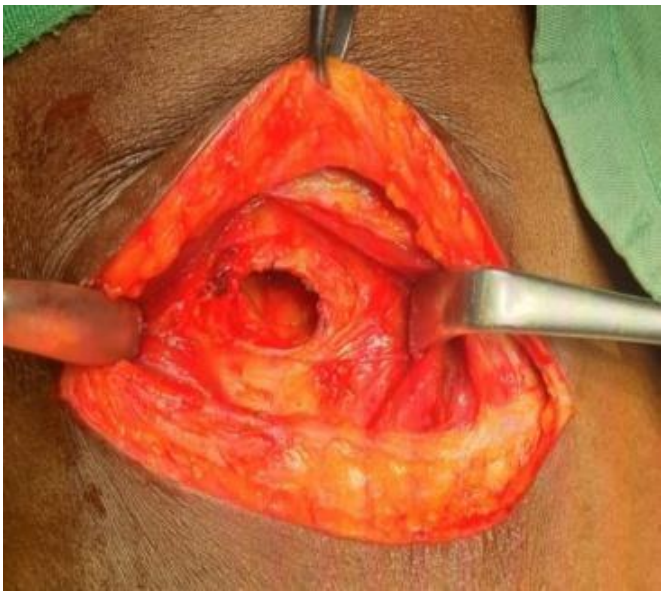
Figure 3. 2cm × 2cm defect, with hernia reduced.

Careful dissection was performed so as not to breach the peritoneum. The hernial sac was then freed from the defect (Figures 3 and 4). The defect was closed primarily using absorbable running sutures. A retromuscular plane was dissected in all directions, and a polypropylene mesh (15cm × 10cm) was placed in this plane as inlay. The rest of the wound was closed in layers. The immediate post-operative period was uneventful, and at 3-month follow-up, the patient reported complete resolution of symptoms.

Figure 4. (a) Psoas muscle (b) llioinguinal nerve

Discussion

While most patients with lumbar hernias are asymptomatic, some, similar to our patient, may present with dull aching pain over a flank swelling. The swelling is mostly reducible when in the prone position and increases on straining or coughing (3). Incarceration and strangulation rarely occur. Most patients are usually men aged between 50 and 70 years old and the hernia is twice as common on the left than the right side (4).

Common differential diagnoses include lipoma, fibroma, hematoma, abscess, and kidney tumours. Detailed history and a meticulous physical examination are crucial to making the correct diagnosis, which can be confirmed by imaging, which may include an ultrasound, CT, or MRI. The imaging studies can also be used to plan for the repair.

Elective surgical management is preferred to reduce the risk of incarceration and strangulation, which may necessitate emergency surgery. In addition, these hernias if left untreated, tend to increase in size with time (5).

The repair can be done via an open or laparoscopic approach, depending on the defect size, expertise, and availability of resources with both local and general anaesthesia utilized (6). The laparoscopic can either be extraperitoneal or transabdominal. Both laparoscopic and open repair have similar success rates with trends favouring the laparoscopic approach due higher accuracy in precisely locating and evaluating the characteristics of the defect, shorter hospital stay, reduced infection rates, and reduced analgesics requirement (7-10). The closure of the defect can be done by direct closure of the defect or with an additional prosthetic mesh.

Recurrences have been noted especially in patients with hernias greater than 16cm and those associated with muscular atrophy (9).

Conclusion

Lumbar hernias are a rare condition and can be misdiagnosed as a lipoma or hematoma. The condition is usually asymptomatic, or it may present with flank swelling with pain. A high index of suspicion will help in diagnosis and repair should be planned with imaging. Repair is surgical either laparoscopically or open, depending on the expertise, resources, and defect size.

Ethical consideration

Informed consent was acquired from the patient for publication of the case report.

Author contributions

MM led in the writing of the first draft while RA contributed to conceptualization, reviewing and editing the original draft.

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