

Atypical Lateral Abdominal Wall Hernia: A Rare Occurrence

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Abstract

Lateral abdominal wall hernias are generally uncommon surgical pathology. An extremely rare type is that occurring without preceding trauma or surgery. Furthermore, a unique subtype is that occurring in the subcostal region along the midaxillary line and is here described as atypical. These hernias are distinct from lumbar and spigelian hernias, and due to their rare occurrence, no consensus exists regarding the best or standardised method of repair. These hernias, due to their infrequent presentations, may be misdiagnosed as subcutaneous lipoma and progress to such a size that may cause significant morbidity. We present a case of a 57-year-old man with a symptomatic atypical lateral abdominal wall hernia that was offered open intermuscular mesh repair with a good outcome.

Keywords: Abdominal wall, atypical, hernia, intermuscular, mesh

INTRODUCTION

Lateral abdominal wall hernias, as defined by the European Society of Hernias, are those occurring within the area bounded by the costal margins, inguinal region/iliac crest, lateral margin of the rectus sheath, and the paraspinal muscles.^[1]

These hernias are rarely encountered in surgical practice, and even much rarer are those occurring in the subcostal region along the midaxillary line.

Hernia repair in these regions is challenging due to the deficient fascial layer that commonly provides a high tensile strength to such repairs.^[2]

In general, options of abdominal wall hernia repairs could be tissue-based, prosthetic-based, or hybrid with various approaches, including open, laparoscopic, and robotics.

Patients presenting with such atypical hernias commonly do so following previous surgery or trauma with very few reports of these hernias occurring spontaneously.^[3]

CASE REPORT

A 57-year-old man presented to our facility with a symptomatic right flank swelling for 2 months. The swelling becomes prominent with exertion and reduces lying supine. He had no features of bowel obstruction or strangulation, no prior history of abdominal surgery or trauma, and no identifiable risk factor

for hernia. He is a known diabetic and hypertensive patient on medications with good control.

Physical examination showed a middle-aged man with a normal body mass index (20.5 kg/m²) and stable vital signs. The essential finding was in the abdomen, which revealed a 10 cm × 8 cm hemispherical swelling in the midaxillary line, inferior to the right costal margin.

It had visible and palpable cough impulse, no differential warmth, not tender, soft, and reducible with a 6 cm × 5 cm defect [Figures 1 and 2].

A diagnosis of symptomatic atypical right lateral abdominal wall hernia in a known hypertensive and diabetic patient was made.

He was counseled, informed consent was obtained, prepared for, and had intermuscular hernioplasty with the intraoperative finding of a defect in the transversus abdominis and internal oblique muscles in the midaxillary line, 4 cm below the right costal margin. The defect was closed, and the

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mesh was fixed between the internal and external oblique muscles (intermuscular) [Figure 3].

He had an uneventful recovery and was discharged on postoperative day 8. Follow-up visits have been satisfactory [Figure 4].

DISCUSSION

Abdominal wall hernias occur in 20.9% of the population with a male preponderance.^[4] Primary lateral abdominal wall hernias, also referred to as nonincisional or nontraumatic lateral abdominal wall hernias, are very rare with few reported cases.^[2,3]

Lumbar and spigelian hernias, even though uncommon, represent the frequently encountered lateral abdominal wall hernias. While spigelian hernias are located on the anterolateral aspect of the lower abdomen, lumbar hernias are located on the posterolateral aspect. In contrast, our patient had a hernia in the subcostal area along the midaxillary line. This is an extremely uncommon site for hernias.

A very close differential of these hernias is a subcutaneous lipoma, which should be differentiated from them by their

characteristics of being multilobulated, soft, and with a positive slipping sign, in addition to having no cough impulse.

Selby,^[5] in 1906, first described lateral abdominal wall hernia in a case report that was traumatic in origin.

Castillo-Sang *et al.*,^[6] in 2009, are credited with the first reported case of nontraumatic lateral abdominal wall hernia in an adult, while Kim and Park,^[3] in 2015, reported the second case of nontraumatic lateral abdominal wall hernia in the literature. To the best of our knowledge, we think that such kind of hernia has not been reported in our environment, and may be the third case in the literature.

Hernias occurring in a similar anatomic site as that of our index patient may follow operative intervention or trauma, both of which are significant risk factors for anterior abdominal wall hernias. However, such hernias are termed incisional hernias, unlike that of our patient. Furthermore, other risk factors for abdominal wall hernias such as heavy weight lifting, obesity, chronic cough, chronic constipation, and difficulty in micturition among others were not identified in our patient.

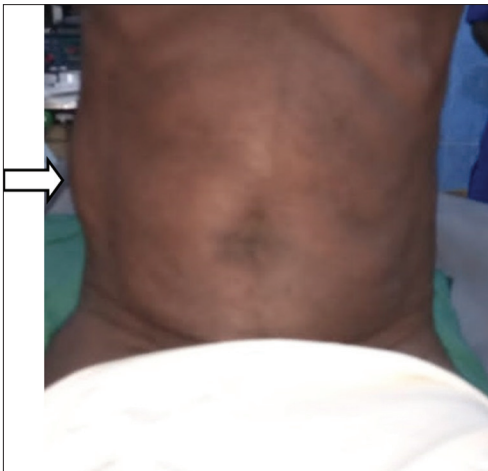


Figure 1: Preoperative picture (anterior view)



Figure 2: Preoperative photo (lateral view)



Figure 3: Intraoperative mesh placement



Figure 4: Post-operative photo

As a result of the rarity of these hernias, no standardised methods of their repair exist.

Repair of these hernias poses a huge challenge to the surgeon due to the high muscle-to-fascia ratio which makes the repair less secure, especially without the use of a prosthesis.^[7] In addition, the closeness of these hernias to bony prominences limits the options available for mesh fixation.^[8]

Kim and Park^[3] and Castillo-Sang *et al.*^[6] both reported similar hernias that were repaired with intraperitoneal onlay mesh using a laparoscopic approach with good outcomes. In contrast, our patient had open intermuscular mesh repair due to a lack of laparoscopic equipment, expertise, and nonavailability of intraperitoneal mesh in our center.

Tissue-based repair alone may suffice, especially in cases of complicated hernias in which a high chance of mesh infection is envisaged; however, the problem associated with this method is the high rate of recurrence.^[9,10]

CONCLUSION

The finding of a hernia below the costal margins and along the midaxillary line is rare, and thus atypical. A high index of suspicion is needed to differentiate them from a lipoma. In overcoming the challenges in the repair of these hernias, the use of mesh is highly favored.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be

reported in the journal. The patient understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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