

CASE REPORTS

A RARE CASE OF SPIGELIAN HERNIA, DIAGNOSIS AND TREATMENT

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ABSTRACT

As it stands, Spigelian hernias are rare and generally overlooked or misdiagnosed. We report a case in which a Spigelian hernia presented to us as a painless abdominal swelling in a 39 year old obese female with no known co-morbidities. The hernia appeared as swelling in the right lower quadrant, which was non tender at the time of admission and showed no signs of strangulation. Diagnosis of the hernia was made on CT-scan and an open technique was adapted to repair it. The post op period was insignificant in the patient.

KEY WORDS: Spiglelian Hernia, Hernia, Spigelian Fascia Defect.

INTRODUCTION

The Spigelian fascia is described as an area that lies medial to the rectus abdominis muscle and lateral to semi lunar line. The defect that arises from the area in between is known as a Spigelian hernia. These hernias are generally intra-peritoneal and penetrate between the muscle fibers of the abdominal wall.¹ They tend to present below the umbilicus due to the fact that above the umbilicus, the anterior abdominal wall is reinforced by the fibers of the external oblique and posteriorly by the transversus abdominis muscle.² It is important to note that the name Spigelian hernia is only given when there is a congenital or acquired defect in this fascia, incisional hernias occurring in this area are not considered to be Spigelian in origin.

Spigelian Hernias make up around 1-2% of the total hernias, hence the reason they are considered to be rare and difficult to diagnose.^{2,3} Literature reports that the first case occurred in 1742, however it wasn't given called a hernia until 1764.³

This study reports one such case, and gives a review of literature and management and fatal outcome if such hernias are over looked.

CASE

A 39-year old obese female presented through the out patient department with the history of an abdominal swelling evident on coughing. Patient showed no history of pain, fever, nausea, or vomiting. Bowel habits reported were normal with no other complaints. The patient underwent myomectomy for symptomatic fibroids. Clinical examination revealed a palpable non tender lump 7 cm x 7 cm in the right lower quadrant at the border of the semi-lunar line on the right side. The lump showed smooth margins, soft in consistency, and a non-inflamed overlying skin. The lump was not noticeable when the patient was lying down, but cough impulse was positive. There was no postural change in size of the lump.

Gut sounds were audible over digital rectal examination was normal and an insignificant Abdominal x-ray. Ultra sound evaluation of the abdomen revealed a mass in the abdominal wall and Computed tomography (CT) scan was confirmed the diagnosis of Spigelian hernia, with incarceration of the small bowel and omentum. The patient underwent surgical excision. Exploratory lapotomy revealed a large defect in the right anterior abdominal wall about 7.3cm x 7 cm and the hernia sac was found to contained part of small bowel loop.

DISCUSSION

As stated previously, Spigelian hernias are extremely rare, they have been given the name "spontaneous lateral ventral hernia." Just like other hernias the etiological factors that predispose to this type of hernia are obesity, chronic conditions that lead to increased intra-abdominal pressure, trauma, prior surgeries, usually occurring around the age of 40-70 years with a female predominance.^{2,4}

The hernia can present as a protrusion of the pre-peritoneal fat, as a part of an extra-peritoneal organ (rare), or more often as a pre-peritoneal sac with variable contents. The contents of the sac are usually omentum or the small bowel, rarely gallbladder, large intestine, stomach^{3,5} with cases that report the content as an inflamed appendix.⁵

The hernia can present as a painless mass or with lower abdominal pain, at times it can become strangulated which like any other hernia is an emergency. The ease of diagnosis depends on the symptoms and makeup of the patient. A painless mass in an obese patient can be overlooked,³ whereas a strangulated hernia is picked up clinically. There are two schools of thought, one that report strangulation of the hernia to be common due to small neck of the hernia, whereas some authors consider it a rarity, regardless 22% of Spigelian hernias have been reported to be strangulated at the time of admission.^{6,7}

The differential diagnosis of Spigelian hernia includes anything that appears as a mass on the abdomen, which

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ranges from an abdominal abscess to hematoma or even an abdominal wall neoplasm.

Diagnosis is not made on clinical suspicion alone, since 36% of routine examinations fail to pick up Spigelian hernias, and upto 50% of the cases reported were false positive. Definite diagnosis preoperatively is made through CT scan.⁴

Treatment of the Spigelian Hernia is surgery carried out under general anesthesia. There are two approaches: open and laparoscopic.⁸⁻¹⁰ Primary open repair technique involves an incision being made in the overlying skin of the hernia, removing the sac en bloc with contents and then reinforcing the abdominal wall by either sutures or by a non-absorbable preperitoneal interstitial mesh.⁹ Laparoscopic approach was first carried out in 1992⁹, and since then its popularity is growing because of its diagnostic accuracy, less post operative complications and short duration of hospital stay.^{6,8,9}

General post operative complications reported are wound infection, hematoma formation and reoccurrence.^{6,9}

In this case the Spigelian hernia is presented as a painless lump without any sign of strangulation hence leading to unnoticed initial diagnosis. However, since reports of such cases of Spigelian hernias has been reported earlier the diagnosis was not excluded, and a CT scan was recommended which confirmed a defect in the Spigelian fascia, hence confirming the diagnosis. An open approach was deployed in this patient, surgery was carried out successfully under all aseptic conditions. A transverse incision was made over the mass, the defect was identified, the sac was isolated and removed with its contents (small bowel loop) and the defect was closed with interrupted sutures using prolene and a second layer of continuous sutures were applied of the same material. A 15 x 15 mesh was securely placed. An appropriate drain was placed above the mesh and anatomy was then restored, overlying skin was closed with staples. No post-operative complications were reported.

CONCLUSION

Spigelian hernias occur as a defect through the Spigelian

fascia, appearing as a mass on the anterior abdominal wall. They are considered to be rare and proven difficult to diagnose on clinical grounds alone. The diagnosis of Spigelian hernia in our case was not expected. The objective of this case report was to shed light upon this rare topic and although these hernias can be clinically overlooked, diagnosis through radiological assistance is clear cut and should be considered in all lower abdominal swellings. Surgery is the appropriate approach and alleviates the patient of his/her symptoms and prevents reoccurrence.

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