



## Case Report

Volume 8 Issue 1 – November 2017  
DOI: 10.19080/ARGH.2017.08.555727

Adv Res Gastroentero Hepatol

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# Unusual Presentation of Spigelian Hernia-A Case Report



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Submission: October 26, 2017; Published: November 21, 2017

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## Introduction

A Spigelian hernia (or lateral ventral hernia) is a hernia through the spigelian fascia which is the aponeurotic layer between the rectus abdominis muscle medially, and the semilunar line laterally [1,2]. There is a common misconception that they protrude below the arcuate line owing to deficiency of the posterior rectus sheath at that level, but in fact the defect is almost always above the arcuate line. They are generally interparietal hernias, meaning that they do not lie below the subcutaneous fat but penetrate between the muscles of the abdominal wall; therefore, there is often no notable swelling. Spigelian hernias are usually small and therefore risk of strangulation is high. Most occur on the right side between 4th-7th decades of life. Compared to other types of hernias they are rare [2-5]

## Case Report



Figure 1: Well defined defect in the Spigelian Fascia.

A 55 year female presented to us with history of pain on the lateral aspect of right subcostal area for more than one year. The pain used to get aggravated when she lied on the the right side. She also gave history of very small swelling on the same side which used to come and go (Figure 1). On examination there was no definite

swelling as such, however there was a only a positive cough impulse. Ultrasonography was done which revealed a defect in the spigelian fascia with features consistent with hernia. In view of persistent discomfort it was decided to explore the patient.

Patient was operated under spinal anesthesia. Before the patient was operated, the site of cough impulse was marked. A transverse incision was made. All the layers were incised till we reached to level of muscle. After splitting muscles, a well-defined defect was seen in spigelian fascia. There was a very thin sac with a positive cough impulse. The defect was closed using 2-0 prolene. This was followed by placing a prolene mesh on the muscle thereby covering the whole defect (Figure 2). Incision was closed back in layers. Patient is on follow up for last one year up without any recurrence.



Figure 2: Well defined defect in the Spigelian Fascia.

## Discussion

Spigelian hernia can be congenital or acquired [5,6-10]. In most of the cases a perforating vessel weakens the spigelian fascia and a small amount of fat enters through that weak area which gradually leads to hernia formation. Any condition which cause stretching of the abdominal wall can lead to such hernias. These may include

obesity, multiple pregnancies, previous surgery or scarring. It is also believed to be one of the complications of chronic ambulatory peritoneal dialysis [11].

The diagnosis of a spigelian hernia is difficult, as it has no characteristic symptoms. Less than 50% of patients are diagnosed preoperatively. The hernia may be interparietal with no obvious swelling on inspection or palpation [12,13]. In other cases the patients may present with a swelling adjacent to the iliac crest in a standing position which disappears on lying down. Rarely the hernia can enter the rectus sheath and can be confused with spontaneous rupture of rectus muscle or with a hematoma in the rectus sheath.

Ultrasound is recommended as first line of investigation [9]. Ultrasonic examination of the semilunar line should be done in all patients with vague abdominal pain associated with bulging of the abdominal wall in the standing patient. The advantages of ultrasonography are that examination of patient can be performed in both supine and upright positions, while the patient performs a Valsalva maneuver. Although CT scanning with thin sections is now considered as the most reliable technique to make the diagnosis in doubtful cases, but magnetic resonance imaging (MRI) may also have benefit in such cases [14]. The use of oral contrast medium during the examination is recommended so that any bowel content can be identified.

Surgery can be performed either by open technique or by laparoscopically. The first intra-abdominal laparoscopic repair of spigelian hernia was performed by Carter and Mizes in 199 [1]. Initially only sutures were used to close the defect but now mesh is placed either extraperitoneally or intraperitoneally after creating a peritoneal flap by trans abdominal approach [14]. Laproscopic repair has a significant advantage in terms of morbidity and hospital stay over an open approach [11,15,16].

The advantage of extra-peritoneal placement of mesh over trans-abdominal approach is that we need not to enter peritoneal cavity and Prolene mesh can be used, which decreases the cost of procedure and also decreases the complications like intestinal obstruction and fistulization of bowel which may be seen with

intraperitoneal approach [5,6]. The need to close the peritoneal flap with tacks or sutures in trans-abdominal approach increases the operative time and cost.

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DOI: [10.19080/ARGH.2017.08.555727](https://doi.org/10.19080/ARGH.2017.08.555727)

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