

# A rare case of spigelian hernia presenting with intestinal obstruction

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## Citation

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## Abstract

Spigelian hernia is a variety of interparietal hernia present at the level of the arcuate line. It is very rare, with only 1000 cases reported in the literature. It is usually diagnosed with the help of CT scan or ultrasonography of the abdomen, apart from clinical examination. Intestinal obstruction in such a rare hernia is still rarer. We would like to report such a rare case of spigelian hernia with intestinal obstruction at our institute.

## CASE HISTORY

A 78-year-old male patient came with features of intestinal obstruction. He was unable to pass stools and flatus for 2 days with distension of the abdomen and bilious vomiting. He also had colicky pain in the abdomen.

He noticed a lump in the left lower part of the abdomen of about 15 x 20cm remaining constant in size. The lump did not decrease on lying down or increase on coughing or straining.

The patient had not undergone any abdominal surgery previously. He did not have fever or altered bowel habits or rectal bleeding.

He had suffered from stroke one month ago as a result of intraparenchymal hemorrhage in the right high parietal region and was diagnosed with hypertension then. He has been taking anticonvulsants (Phenytoin) and antihypertensives (Amlodipine) since then.

On examination, the patient's pulse rate and blood pressure were within normal limits. He had slight pallor. His abdomen was distended with a lump in the left iliac fossa of about 15 x 20 x 5cm. The lump was firm, with no impulse on coughing. Bowel sounds were absent.

On digital per rectal examination, ballooning of the rectum was noted.

The patient's hemoglobin was mildly decreased (9.9gm%). The rest of the investigations were within normal limits. Serum creatinine and serum electrolyte levels were normal.

## ON INVESTIGATION

Abdominal X-ray (standing) showed multiple air-fluid levels. These loops did not resolve on repeat X-ray after 48 hours of conservative management.

Ultrasonography of the abdomen revealed dilated small and large bowel loops loaded with fecal matter in the left iliac fossa region measuring 3.2 x 4.6cm. The patient also had prostatomegaly (post void urine residue = 130cc).

The patient was started on conservative management for intestinal obstruction. Nasogastric tube aspiration was started and urine output was monitored. Antibiotics (Cefotaxim, Metronidazole) were started. An enema was given and a flatus tube was passed, but results were poor. The patient's obstruction was not relieved with these measures.

The patient underwent exploratory laparotomy. On exploration, a defect was seen in the peritoneum through which large and small bowel was herniating. A separate incision was made over this Spigelian hernia and hernia repair was carried out along with adhesiolysis. The defect was closed by herniorrhaphy. Dilated loops of bowel were decompressed.

**Figure 1**

Figure 1: Opened sac of spigelian hernia in the left arcuate line



Postoperatively, the patient passed stools and flatus and was discharged on day 15 of surgery after complete suture removal.

## DISCUSSION

Spigelian hernia occurs through congenital or acquired defects in the spigelian fascia. This is the area of the transversus abdominis aponeurosis, lateral to the edge of the rectus muscle but medial to the spigelian line, which is the point of transition of the transversus abdominis muscle to its aponeurotic tendon.<sup>13</sup>

The hernia sac usually contains the greater omentum. However, involvement of other organs has been reported, including the small intestine, colon, stomach, gallbladder, Meckel's diverticulum, appendix, ovaries and testes.<sup>123</sup> These hernias mainly occur among adults between 40 and 70 years of age, and generally in obese females who have undergone multiple pregnancies. The most common diseases that mimic spigelian hernia include rectus sheath hematoma, abdominal wall abscess and seroma.

Spangen, in 1984, was the first to use ultrasonic scanning for the diagnosis of spigelian hernia. This approach has gained

wider acceptance recently. According to Spangen, rapid and accurate diagnosis can be made by carefully scanning the abdominal wall to demonstrate the discontinuity in the echo line from the aponeurosis caused by a hernial orifice in the spigelian fascia, at the level of the palpable mass or point of tenderness.<sup>15</sup> Nonetheless, most authors have found that many spigelian hernias may remain undiagnosed until laparotomy is performed.

Although uncommon, spigelian hernias account for over 2% of cases undergoing emergency surgery for abdominal wall hernia. The treatment of this condition is always surgical, and typically has excellent results.

Intestinal obstruction occurring in these hernias is uncommon as the defect is usually large. The patient can have episodes of irreducibility but obstruction is rare.

Treatment is similar to any patient of intestinal obstruction; however, larger sacs need to be excised and any concurrent sliding hernia needs to be ruled out. A mesh is put to cover this defect (inlay). A drain is kept for couple of days over the mesh. The prognosis is excellent. Routine peri-operative advice is given to the patient as to any patient of hernia.

We have reported such a rare case of spigelian hernia, which presented with intestinal obstruction at our institute.

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