Strangulated Spigelian hernia

Robert M. Kirby

Royal Surrey County Hospital, Guildford, Surrey, UK.

Summary: Spigelian herniae rarely present as emergencies. There have been two cases requiring emergency surgery at this hospital within the last 5 years, representing 2.4% of all abdominal wall herniae requiring urgent treatment for strangulation.

Introduction

Spigelian herniae are uncommon abdominal hernias, and likewise an uncommon cause of acute abdominal pain. They occur through a defect in the transversus abdominis fascia. The diagnosis is not always straightforward, especially when a mass is not palpable. The most important factor in the diagnosis of this condition is a high index of suspicion. Two patients are described, who presented with strangulated Spigelian herniae.

Case reports

Case 1

A 75 year old woman presented with a 6-hour history of abdominal pain and vomiting. She had noticed an intermittent swelling in the right side of her abdomen for the preceding 2 weeks. Before the onset of pain, she noticed the swelling to be larger and more tender than usual. She had not had previous surgery. On examination she was in pain, but was afebrile. There was a palpable swelling 4 cm in diameter, 3 cm above the right internal inguinal ring, which was exquisitely tender. She had obstructed bowel sounds and abdominal X-rays revealed multiple fluid levels in the small bowel.

At operation a hernia sac was found extending through the transversus abdominis fascia and internal oblique. The sac, when opened, revealed partially obstructed viable small bowel. This was returned to the peritoneal cavity and the hernia repaired.

The patient made good progress and was discharged 8 days post-operatively.

Case 2

A 48 year old woman presented with a swelling in the right groin, which had been present for 3 hours. She had noticed a lump in this position, appearing intermittently, for up to 2 years. Ten weeks before this admission she had had an abdominal hysterectomy performed through a Pfannenstiel incision. No abnormality had been noticed at this time.

On examination she had a mass 3 × 4 cm lying above the inguinal canal, just lateral to the Pfannenstiel incision. This was extremely tender, but there were no generalized signs of bowel obstruction or peritonitis. At operation a Spigelian hernia was found at the lateral border of the rectus muscle. The sac contained omentum, but no bowel. The omentum was replaced and the hernia repaired.

She was discharged home 5 days later.

Discussion

The hernia of Andrien Van De Spieghel (1578–1625, Professor of Anatomy, Padua, Italy)¹ is one of the less common anterior abdominal wall herniae. It occurs through a defect in the Spigelian fascia, that is, the transversus abdominis aponeurosis lateral to the rectus muscle, often at the level of the arcuate line, where the fascia is widest and weakest.

Although it is said that strangulation is common, there are few published reports.^{2–5} These two cases presented within a period of 14 months. In a retrospective review of hernias repaired as emergency procedures in the preceding 5 years in this hospital, there were no other such cases. During this period a total of 82 anterior abdominal wall herniae required repair for strangulation. The incidence of Spigelian hernia in this series was thus 2.4%. Although this is a small series, it is one of the few looking at the different

Correspondence: R.M. Kirby F.R.C.S. Queen Elizabeth Hospital, Edgbaston, Birmingham B15 2TH.

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types of abdominal wall hernias requiring emergency treatment.

Enquist and Dennis⁴ reviewed the literature regarding strangulated hernias in 1955. Out of nearly 2,300 cases, 3% were ventral herniae (excluding umbilical). The proportion of Spigelian hernias was not discussed. Likewise in other series Hancock⁶ found an incidence of 4.4% of ventral hernias in 774 Ugandans presenting with strangulated herniae and 14.5% of ventral hernias in 158 patients presenting with strangulated herniae in Manchester. Magee *et al.*⁷ found an incidence of 8.4% of ventral hernias (excluding umbilical) in 190 strangulated external herniae.

Spangen extensively reviewed the literature regarding Spigelian herniae in 1984;⁸ 744 patients had required surgery for this condition, although the proportion of these presenting acutely was not reported. Within his own experience, 2 out of 25 herniae in 24 patients presented as emergencies.

It has been suggested that the diagnosis of Spigelian herniae may be difficult to make because the symptoms are often deceptive.⁹ The patient may present with a pain in the lower abdomen that is not related to any specific organ. A mass is not always palpable,

because the sac lies beneath the external oblique aponeurosis. Both patients described in this report presented with a painful abdominal swelling, aiding the preoperative diagnosis. A high index of suspicion is therefore necessary in this situation.

Ultrasound, in the hands of an experienced observer, may demonstrate a defect in the transverse abdominis aponeurosis, and a strangulated hernia if present.¹⁰ Papierniak *et al.*¹¹ have shown that computerized tomography, by accurately delineating the layers of the anterior abdominal wall, may also confirm the presence of a Spigelian hernia. Where these facilities are available, their use should be considered if the diagnosis remains in doubt.³

Conclusion

Spigelian herniae are uncommon, but may still represent more than 2% of abdominal wall herniae requiring emergency surgery. The diagnosis is not always straightforward, and may be assisted by abdominal ultrasound or computerized tomography.

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