

## Spigelian hernia mimicking appendicular mass

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### Case report

A 44-year-old woman with a virgin abdomen presented to the Emergency Department with a 2-day history of nausea, constipation and right iliac fossa abdominal pain. Physical examination revealed tenderness maximum at McBurney's point associated with an ill defined palpable intra-abdominal mass. The patient's haemoglobin and white blood cell count were within normal limits. Abdominal plain film radiograph (PFR) showed faecal loading of the colon, but no other cause for the patient's symptoms (Fig. 1). Given the equivocal blood tests and PFR results, computed tomography (CT scan) of the abdomen and pelvis was performed. The CT scan revealed an incarcerated loop of small bowel within a right sided Spigelian hernia, dilated proximal small bowel loops, and a radiologically normal retro-caecal appendix (Figs. 2, 3). Because of the presence of small bowel obstruction and possible need for bowel resection, the patient underwent open surgery through a right iliac fossa incision where a knuckle of dusky but viable terminal ileum was reduced, and the defect closed with non-absorbable sutures. Incidental appendicectomy was not performed as this would have required extension of the incision and mobilisation of the caecum, and because the appendix was not responsible for the patient's symptoms. The patient recovered uneventfully, and was discharged on the fourth post-operative day.

### Discussion

Spigelian hernias account for 1–2% of all hernias presenting as emergencies [1]. They occur through a weakness in the transversus abdominis fascia lateral to the rectus abdominis muscle, at the level of the arcuate line of Douglas, in an area termed the “Spigelian hernia belt” (named after the sixteenth century Belgian anatomist Adrian van den Spieghel) [1]. As the overlying external oblique fascia remains intact, Spigelian hernias can be difficult to detect clinically, and may be confused with other pathologies such as appendicitis, diverticulitis and

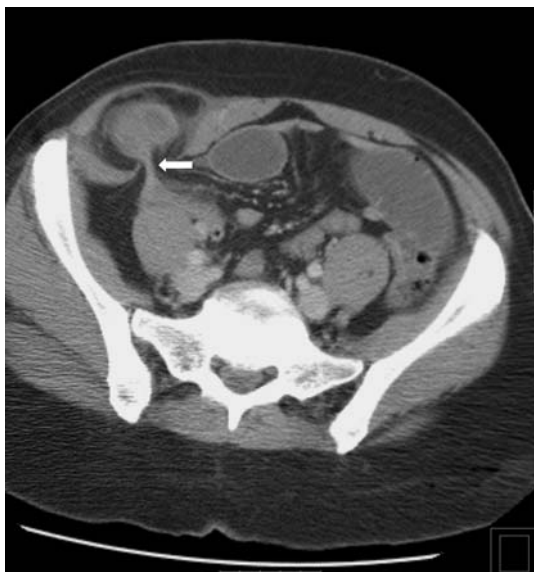


**Fig. 1** Abdominal PFR showing faecal loading of the colon

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**Fig. 2** Oral and intravenous contrast-enhanced CT scan showing incarcerated small bowel between the external and internal oblique fascial layers (*twin arrows*), proximal dilated small bowel (*twin arrowheads*) and a radiologically normal retro-caecal appendix lying in the right iliac fossa (*single arrow*)



**Fig. 3** Oral and intravenous contrast-enhanced CT scan showing the narrow neck of the Spigelian hernia defect (*single arrow*)

colonic carcinoma [1, 2]. CT scan has high specificity and sensitivity in outlining the anatomy of the anterior abdominal wall, and therefore is useful in confirming the diagnosis even in the absence of incarceration [3]. Spigelian hernias have a high risk of incarceration (up to 21%), and thus patients should be offered prompt surgical repair [1]. Laparoscopic surgery is increasingly advocated in elective Spigelian hernia repair, but an expeditious open approach is arguably more appropriate in the emergency setting, particularly when small bowel resection may be necessary [1, 3].

**Conflict of interest statement** The authors declare that they have no conflict of interest related to the publication of this manuscript.

### References

1. Sharma H, Rich L, Kelly MD (2007) Spigelian hernia presenting as an appendicular mass. *South Med J* 100:1037–1038
2. Miller R, Lifschitz O, Mavor E (2008) Incarcerated Spigelian hernia mimicking obstructing colon carcinoma. *Hernia* 12:87–89
3. Fisichella PM, Harwell J, Brosnan J, Abcarian H (2007) Richter's hernia through a Spigelian defect of the abdominal wall. *Am J Surg* 193:69–70