

# Incidental discovery of Amyand's hernia

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## DESCRIPTION

A 58-year-old woman was referred to Hospital Tuanku Ja'afar (Seremban, Malaysia) for contrast-enhanced CT abdomen and pelvis following discovery of a solid mass in the right adnexa on ultrasonography. CT findings revealed a well-defined, fat-containing mass with calcifications in the right adnexa measuring  $4.5 \times 7.8 \times 4$  cm, consistent with ovarian teratoma (figure 1). Incidentally, the vermiform appendix appeared to be elongated and extended into the right inguinal canal. It was not enlarged, and there was no surrounding fat streakiness (figures 1 and 2). A diagnosis of Amyand's hernia was made. She was advised for conservative (non-surgical) treatment as she was asymptomatic for both ovarian mass and Amyand's hernia. She was then given appointment for ultrasound follow-up.

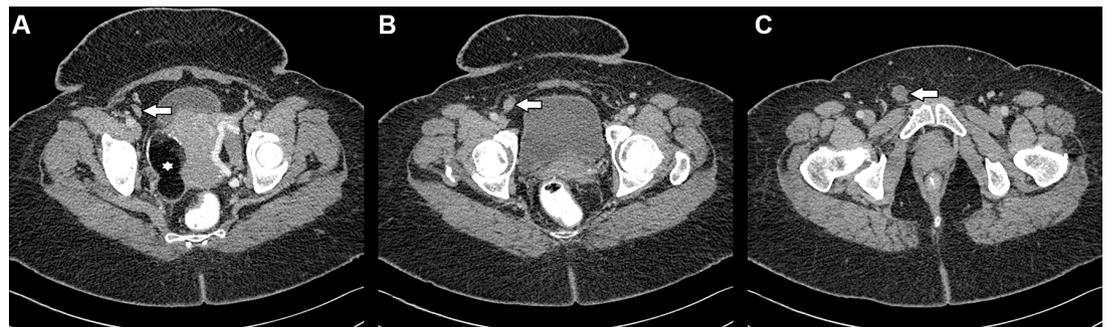
The eponym 'Amyand's hernia' was proposed by Creese in 1953 in recognition of Claudius Amyand. Amyand was a renowned surgeon at St George's Hospital and is widely credited as the first to perform appendectomy. In 1735, he treated an 11-year-old boy named Hanvil Anderson with chronically inflamed appendix in an inguinal hernia. The child survived but the hernia recurred.<sup>1,2</sup>

Amyand's hernia is characterised by the protrusion of a vermiform appendix in an inguinal hernia sac. The pathophysiology is unclear but the vermiform appendix is thought to herniate through

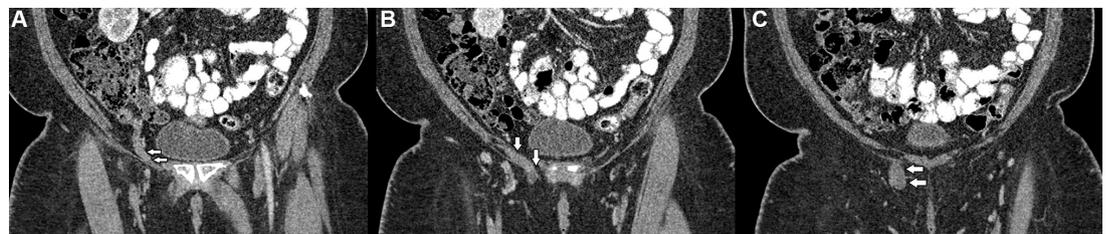
a patent processus vaginalis.<sup>1</sup> It is a rare type of hernia occurring in 0.4%–1% of inguinal hernias and most often in male patients.<sup>1,2</sup> Symptomatic patients usually present with signs and symptoms indistinguishable from an incarcerated inguinal hernia. Thus, the condition is often diagnosed by imaging or intraoperatively.

Radiographic appearance of the Amyand's hernia is represented by a blind-ending tubular structure arising from caecum and extending into inguinal sac.<sup>1,2</sup> It can be a normal appendix or inflamed. A normal appendix filled with air will not be readily visible on ultrasonography, while an inflamed structure will appear thickened, non-compressible and hypervascular. CT scan allows direct visualisation of the appendix and can demonstrate the entire length of appendix on multiplanar reconstruction. An inflamed appendix will appear thick and avidly enhancing with periappendiceal fat stranding. Additionally, CT scan allows close scrutiny of the hernial sac (size, neck diameter) and its contents which may include normal abdominal structures or complications from appendicitis. In case of necrotising fasciitis, CT is also useful to delineate the extent of involvement.<sup>1</sup>

Most literatures highlight the management of Amyand's hernia following intra-operative discovery. There is a scarcity of literature regarding the management of



**Figure 1** Contrast-enhanced CT abdomen and pelvis in axial sections showing the appendix (arrows) extending into the right inguinal canal. Right ovarian teratoma is also visualised (asterisk).



**Figure 2** Contrast-enhanced CT abdomen and pelvis in coronal sections showing the appendix (arrows) extending into the right inguinal canal.



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## Learning points

- ▶ Amyand's hernia is a rare type of hernia occurring in 0.4%–1% of inguinal hernias.
- ▶ It is often asymptomatic and is often discovered on cross-sectional imaging or intraoperatively.
- ▶ Symptomatic patients present with signs and symptoms indistinguishable from an incarcerated inguinal hernia.

incidental preoperative discovery. A review of literature by Desai *et al* showed that most surgeons accept the notion of preserving the appendix if normal. Some suggest appendectomy for all left-sided Amyand's hernia while others are in favour of appendectomy only if it is inflamed.<sup>3</sup> Losanoff and Basson proposed a classification system for staging and management of Amyand's hernia—all involving hernia repair.<sup>3</sup> Reduction and mesh repair are only recommended for normal appendix while appendectomy and repair of a hernia without using mesh are recommended

if there is any evidence of appendicitis (stages 2–4).<sup>1</sup> Mesh is thought to increase the chance of wound infection, sepsis and fistula formation.<sup>1</sup>

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## REFERENCES

- 1 Ivanschuk G, Cesmebasi A, Sorenson EP, *et al*. Amyand's hernia: a review. *Med Sci Monit* 2014;20:140–6.
- 2 Singal R, Gupta S. "Amyand's hernia" - pathophysiology, role of investigations and treatment. *Maedica* 2011;6:321–7.
- 3 Desai G, Pande P, Thomas S, *et al*. Amyand's hernia: our experience and review of literature. *Arg Bras Cir Dig* 2017;30:287–8.

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