

AMYAND HERNIA; APPENDICITIS TO MESH OR NOT TO MESS?

Divya Nelson, Raheela Aqeel

James Paget University Hospital NHS Foundation Trust

CLINICAL HISTORY: 68 year old male

-A&E presentation with severe right groin pain which had started upon straining.

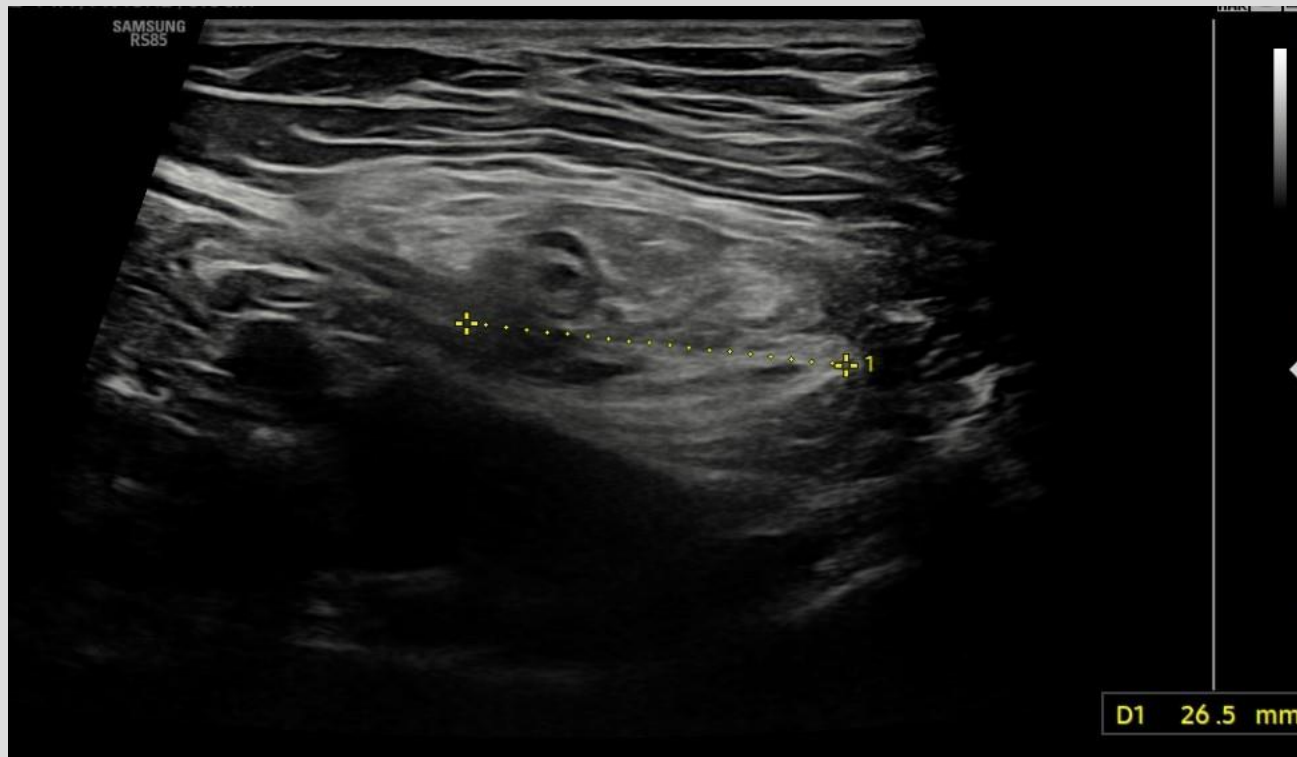
-On examination: Irreducible right inguinal hernia.

BLOODS: CRP 22, Lactate 1.

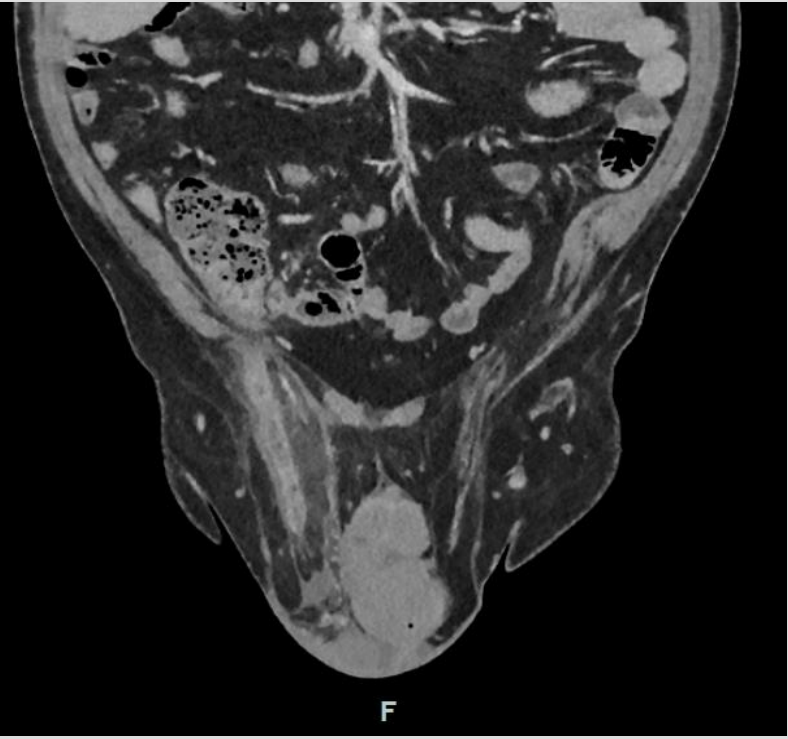
RADIOLOGY: CT abdomen and pelvis showed: dilated appendix with marked fat stranding within a right inguinal hernia with mural defects in keeping with localised perforation.

Interestingly the patient had undergone an ultrasound a year before which showed a normal caliber appendix within the right inguinal hernia.

OUTCOME: Patient underwent an uneventful laparoscopic appendectomy with hernia repair. Although a hernia mesh repair was considered, it was felt the risk of subsequent infection was too high.



Ultrasound of the right inguinal region showing a right inguinal hernia containing appendix with a hernia neck of 2.7cm (November 2022)



Dilated, inflamed appendix within the right inguinal hernia
in keeping with acute appendicitis (October 2023)

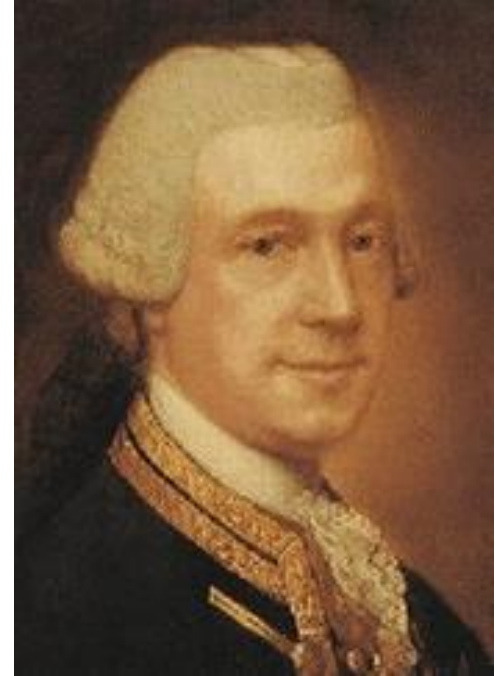
AMYAND HERNIA

-Uncommon form of inguinal hernia in which the vermiform appendix is located within the hernial sac (less than 1% of inguinal hernias) ¹

-Acute appendicitis within the hernia sac is extremely rare and is seen in approximately 0.1% cases ²

- **Claudius Amyand** (c.1681-1740) was a French surgeon who performed the first successful appendicectomy in 1735, on an 11-year-old boy who presented with an inflamed, perforated appendix in his inguinal hernia sac ²

-Note femoral hernia containing appendix is called De Garengot hernia.



CLAUDIUS AMYAND 4

- **CLINICAL RELEVANCE:** Losanoff & Basson proposed a classification in which if the appendix is inflamed then appendectomy and hernia repair is suggested without the use of mesh due to increased risk of wound infection in the presence of inflammation ^{5,6}

Classification	Description	Surgical management
Type 1	Normal appendix within an inguinal hernia	Hernia reduction, mesh repair, appendectomy in young patients
Type 2	Acute appendicitis within an inguinal hernia, no abdominal sepsis	Appendectomy through hernia, primary repair of hernia, no mesh
Type 3	Acute appendicitis within an inguinal hernia, abdominal wall, or peritoneal sepsis	Laparotomy, appendectomy, primary repair of hernia, no mesh
Type 4	Acute appendicitis within an inguinal hernia, related or unrelated abdominal pathology	Manage as types 1 to 3 hernia, investigate or treat second pathology as appropriate

FIGURE 2: CLASSIFICATION OF AMYAND HERNIA MANAGEMENT; LOSANOFF AND BASSON CLASSIFICATION SYSTEM¹

- The finding of Amyand's hernia is rare with most surgeons encountering only a few cases in their career. Although the Losanoff and Basson classification system is useful, the decision is ultimately based on the individual patient (e.g septic) and operative features ⁷
- In an uncomplicated Amyand hernia, hernia reduction with mesh repair is the usual practice. Appendicectomy may be performed in young patients ^{5,6}

REFERENCES

- [1] Burgess PL, Brockmeyer JR, Johnson EK. Amyand hernia repaired with Bio-A: a case report and review. *J Sur Educ.* 2011;68:62–6.
- [2] Amyand C. Of an inguinal rupture, with a pin in the appendix caeci, incrusted with stone; and some observations on wounds in the guts. *Philos Trans R Soc Lond.* 1736;39:329–36.
- [3] *Portrait of Claudius Amyand wearing a blue coat edged with gold by Thomas Gainsborough, Portrait of Claudius Amyand wearing a blue coat edged with gold by Thomas Gainsborough on artnet.* Available at: <https://www.artnet.com/artists/thomas-gainsborough/portrait-of-claudius-amyand-wearing-a-blue-coat-HLOVu-zP7GB0IksXTrjwBQ2> (Accessed: 21 January 2024).
- [4] Green J, Gutwein LG. Amyand's hernia: a rare inguinal hernia. *J Surg Case Rep.* 2013 Sep 11;2013(9):rjt043. doi: 10.1093/jscr/rjt043. PMID: 24963899; PMCID: PMC3813824.
- [5] Losanoff JE, Basson MD. Amyand hernia: what lies beneath—a proposed classification scheme to determine management. *Am Sur.* 2007;73:1288–90.
- [6] Losanoff JE, Basson MD. Amyand hernia: a classification to improve management. *Hernia.* 2008;12:325–6. doi:10.1007/s10029-008-0331-y
- [7] Holmes, K., Guinn, J.E. Amyand hernia repair with mesh and appendectomy. *surg case rep* 5, 42 (2019). <https://doi.org/10.1186/s40792-019-0600-2>