



Amyand's Hernia Presenting as an Incarcerated Inguinal Hernia: A Case Report

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Abstract

Background: Amyand's hernia is a rare condition in which the vermiform appendix is found within an inguinal hernia sac. Its presentation may resemble an incarcerated inguinal hernia, and the diagnosis is often established during surgery.

Case Presentation: A 20-year-old male presented to the Department of General Surgery with [duration and symptoms] of an inguinal swelling. Clinical examination suggested an incarcerated inguinal hernia. Surgical exploration revealed the vermiform appendix within the hernia sac, confirming Amyand's hernia. The appendix was perforated, and the patient underwent. **Conclusion:** Amyand's hernia should be considered as a possible diagnosis in patients undergoing surgery for an incarcerated inguinal hernia. Careful assessment of the appendix and surrounding tissues is essential for selecting appropriate surgical management.

Keywords: Amyand's hernia; incarcerated inguinal hernia; appendix; appendectomy; hernia repair.

INTRODUCTION

An inguinal hernia occurs when abdominal contents protrude through a weakened area of the inguinal region. The clinical presentation ranges from a longstanding reducible swelling to an acutely painful, irreducible mass that requires urgent surgical evaluation. The presence of an unusual organ within the hernia sac may complicate diagnosis and influence operative management.

Amyand's hernia is defined by the presence of the vermiform appendix within an inguinal hernia sac. The appendix may be normal, inflamed or perforated. Although the condition is uncommon, it is clinically important because the operative strategy depends substantially on the condition of the appendix and the degree of local contamination.

The diagnosis is frequently established intraoperatively because the presenting symptoms and physical findings can resemble those of an ordinary incarcerated inguinal hernia. Imaging may occasionally identify the appendix within the hernia sac before surgery, but the diagnostic yield depends on the clinical context and the investigations performed. A 2020 radiological case report described preoperative recognition of Amyand's hernia using computed tomography, illustrating the diagnostic value of imaging in selected patients [1].

The operative management of Amyand's hernia remains dependent on the condition of the appendix and the surrounding tissues. When inflammation, perforation or infection is present, management must account for the risk of contamination. The decision regarding appendectomy and the method of hernia repair should therefore be guided by the operative findings and the patient's clinical condition. Published reports in 2020 discuss both incidental findings and complicated presentations [2–4].

This case report is intended to describe an episode of Amyand's hernia presenting as an incarcerated inguinal hernia,

emphasizing its clinical presentation, operative findings, treatment and postoperative outcome.

CASE PRESENTATION

Patient information

A 20-year-old male presented to the Department of General Surgery at B.P. Koirala Institute of Health Sciences with a complaint of groin swelling for May 2021 to June 2021. The swelling was associated with pain, tenderness, irreducibility, vomiting, abdominal distension, constipation symptoms.

The patient's relevant medical history included [insert documented comorbidities, previous abdominal operations and hernia history]. Any relevant medication use, allergies and previous episodes of similar symptoms should be described according to the clinical record.

Operative findings

Following appropriate preoperative preparation, the patient underwent [open/laparoscopic] exploration for an incarcerated [right/left] inguinal hernia.

During exploration, the vermiform appendix was identified within the hernia sac, establishing the diagnosis of Amyand's hernia. The appendix was described as [normal/infamed/gangrenous/perforated], and the surrounding tissues showed. The presence or absence of pus, faecal contamination, abscess or peritoneal involvement should be documented if assessed.

The case may be classified according to the Losanoff–Basson system if the condition of the appendix and associated operative findings support that classification.

Surgical management

The procedure performed was [insert actual procedure, such as reduction of hernia contents, appendectomy and hernia repair].

The decision to remove or preserve the appendix and the method of hernia repair should be described in relation to the operative findings. The use of mesh, primary tissue repair or another technique must reflect the actual procedure and the degree of contamination.

The postoperative treatment included [insert documented analgesia, antimicrobial treatment, wound management and other relevant interventions]. No treatment details should be added unless confirmed in the patient's record.

Histopathological findings

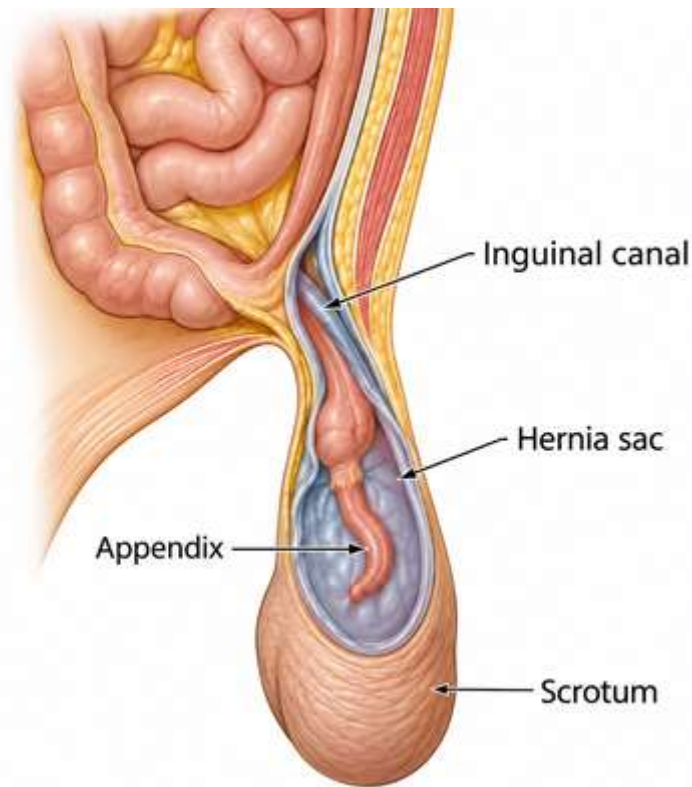
Histopathological examination of the appendix was not performed.

If histopathology was not performed, that fact should be stated rather than inferring the presence or absence of appendicitis from the operative description alone.

Postoperative course and follow-up

Following surgery, the patient's postoperative course was [insert actual details]. The wound condition at discharge was [insert findings], and the patient was discharged on postoperative day [number] or remained hospitalized for [duration].

At follow-up after [duration], the patient was [insert documented clinical status]. Any postoperative complications, readmission or recurrence should be reported only if confirmed in the medical record.



DISCUSSION

Amyand's hernia is an unusual anatomical presentation of inguinal hernia in which the appendix is contained within the hernia sac. It may be encountered in patients with a reducible hernia, acute incarceration or complicated appendicitis. The condition is clinically relevant because the nature of the appendiceal involvement can change the operative approach.

Diagnostic considerations

The clinical presentation may not distinguish Amyand's hernia from other causes of an incarcerated inguinal swelling. Groin pain, tenderness and irreducibility can occur in ordinary inguinal hernia as well as in a hernia containing an inflamed appendix.

Preoperative recognition is possible in selected cases through imaging. Kathar Hussain and Kulasekaran reported radiological identification of Amyand's hernia in 2020, demonstrating that the diagnosis may occasionally be established before surgical exploration [1]. Nevertheless, the definitive diagnosis in many patients is made when the contents of the hernia sac are examined during surgery.

The diagnostic discussion in this case should distinguish between the preoperative impression and the final operative diagnosis. If the appendix was not recognized on imaging, the case may illustrate the diagnostic limitations of the initial assessment; if it was identified preoperatively, the specific imaging findings should be described.

Importance of appendiceal condition

The condition of the appendix is central to the management of Amyand's hernia. A macroscopically normal appendix presents a different operative situation from an inflamed or perforated appendix. The presence of purulent material, perforation or surrounding infection also affects the choice of repair technique.

Case reports published in 2020 illustrate this variation. Khanal and colleagues described a child with an irreducible inguinal hernia in whom the appendix and caecum were found within the hernia sac [2]. Gupta and colleagues reported an incarcerated inguinal hernia containing a perforated appendix, demonstrating a more complicated presentation [3]. These reports illustrate the range of disease encountered rather than establishing a single universally applicable treatment strategy.

The discussion of the present case should state whether appendicitis or perforation was documented and explain how those findings informed the operation performed. A normal appendix should not be described as inflamed, and an uncomplicated case should not be characterized as contaminated without supporting operative evidence.

Choice of hernia repair

The decision regarding hernia repair should take account of the appendiceal condition and the operative environment. The potential benefits of mesh repair must be considered in relation to infection and contamination risk, while the suitability of primary tissue repair depends on the individual findings and the surgeon's assessment.

Kakodkar and colleagues published a 2020 report concerning the operative management of an incidentally identified

Amyand's hernia and discussed the limitations of applying a single classification-based strategy to every anatomical presentation [4].

In the present report, the repair method should therefore be described together with the condition of the appendix, the degree of contamination and the rationale documented by the operating team. A case report should not imply that the procedure used in one patient is suitable for every Amyand's hernia.

Clinical relevance

The principal educational value of an Amyand's hernia case lies in recognizing that the contents of an inguinal hernia may be unexpected and that the final operative plan depends on what is found. Careful assessment of the appendix, surrounding tissues and contamination is important when deciding on appendectomy and hernia repair.

The significance of this particular case should be stated only after its actual clinical details are inserted. Features that may strengthen the report include an unusual initial presentation, informative preoperative imaging, a distinctive operative finding, unexpected appendiceal pathology or a noteworthy management decision.

CONCLUSION

Amyand's hernia is an uncommon cause of an incarcerated inguinal hernia in which the vermiform appendix is present within the hernia sac. Its diagnosis may be established before surgery in selected cases but is frequently made during operative exploration.

The condition of the appendix and the degree of local contamination are central to surgical decision-making. This case report should document the presentation, investigation findings, appendiceal status, procedure and follow-up outcome so that the particular clinical lesson can be understood by other surgeons.

Patient Consent and Ethical Considerations

Written informed consent for publication of the clinical details and images should be obtained from the patient or the legally authorized representative, as appropriate. The report should also comply with the institutional ethics and journal requirements applicable to case reports.

REFERENCES

1. Kathar Hussain MR, Kulasekeran N. A case report of Amyand hernia—radiological diagnosis and literature review. *Egyptian Journal of Radiology and Nuclear Medicine*. 2020;51:226. doi:10.1186/s43055-020-00346-4.
2. Khanal B, Agrawal S, Gurung R, Sah S, Gupta RK. Amyand's hernia in a 5-year-old child: a case report and literature review. *Journal of Surgical Case Reports*. 2020;2020(9). doi:10.1093/jscr/rjaa302.
3. Gupta AK, Vazquez OA, El Haddi J, Dedwylder M, Yeguez JF. Amyand's hernia: perforated appendix in an incarcerated inguinal hernia. *Cureus*. 2020;12(4). doi:10.7759/cureus.7622.
4. Kakodkar P, Neo WX, Khan MHT, Baig MN. An incidental discovery of Amyand's hernia: a case study and literature review on its intraoperative management. *Cureus*. 2020;12(12). doi:10.7759/cureus.11858.
5. Agha RA, Franchi T, Sohrabi C, Mathew G, Kerwan A; SCARE Group. The SCARE 2020 guideline: updating consensus Surgical CAse REport guidelines. *International Journal of Surgery*. 2020;84:226–230. doi:10.1016/j.ijssu.2020.10.034.