



A RARE CASE OF PERFORATED APPENDIX IN AMYANDS HERNIA

Dr Sabu Jeyasekharan

Dr Devaprasath Jeyasekharan

Dr Bala Vidyasagar

Dr Nithila C

Dr Harikrishnan M

Dr K Sampath kumar

ABSTRACT

Presence of appendix in inguinal hernia is rare. Perforated appendix in inguinal hernia is even rarer. We report an incidental finding of perforated appendix in Amyand's hernia for its rarity.

KEYWORDS :

Introduction

Appendix is found in the hernial sac in 1% of inguinal hernias and is known as Amyand's hernia. Incidence of perforated appendix in Amyand's hernia is 0.1% [1]. Amyand's hernia is usually an incidental finding. due to the normal anatomic position of the appendix, Amyand's hernia is usually found on the right side Here we report a case of perforated appendix in right inguinal hernial sac.

Case report

A 79 year old male who is a diabetic ,hypertensive with history of ischemic heart disease presented with pain and swelling in right inguinal region of 1 day duration. It was associated with fever. At physical examination, He had tachycardia, Tachypnoea and there was a swelling in the right inguinal region extending to scrotum which was tender, irreducible with absent cough impulse and there were signs of inflammation. A clinical diagnosis of obstructed right inguinal hernia with possible gangrene was made. CT was reported as right inguinal hernia with possibility of incarceration (Fig 1). He was posted for right inguinal exploration. When the sac was opened perforated appendix with significant amount of pus was found. (Fig 2). Pus was sucked out, wound was thoroughly irrigated and appendectomy was done. As the patient was in sepsis it was decided to do herniorraphy or hernioplasty later.

Discussion.

Amyand's hernia was first described by Claudius Amyand in 1735. It is more common in males with a bimodal age distribution, occurring in neonates and in adults more than 70 years of age[2].Amyand's hernia is often found incidentally on the table and preoperative clinical diagnosis is difficult[3].Frequency of appendicitis in Amyand's hernia is more than in appendix at normal position[3].Proposed hypothesis for the occurrence of appendicitis in hernia is the intermittent compression of the hernial orifice by the abdominal muscles leading to ischemia, another hypothesis is that the appendix is located superficially in the hernia sac which makes it prone to trauma and secondary inflammation[4]. No consensus has been reached regarding the management of a normal appendix in Amyand's hernia.[5]. Some authors believe that appendicectomy is not necessary if appendix does not show any signs of inflammation [6,7,8] while others favour appendectomy. Mesh should not be used in cases of inflamed appendix of perforation as it can lead to increased chances of wound infection, sepsis, fistula formation and recurrence of the hernia. Many authors support mesh repair when appendix is not inflamed[6]. Level of infection determines the choice of hernia repair. A classification

scheme to determine management of amyands hernia was proposed by Losanoff and Basson [9] (table 1). Shouldice technique can be considered depending on experience of the surgeon. Littre's hernia, (herniation of Meckel's diverticulum), can be similar to Amyand's hernia in its clinical and radiological presentation. Appendicitis can also occur in the femoral hernia sac (De Garengeot's hernia)[10].

Conclusion

Amyand's hernia is a combination of two common diseases seen in general surgical practice. Diagnosing it can be challenging as the incidence is low and the clinical presentation is indistinct. Choice of removal of non-inflamed appendix in Amyand's hernia is left to the operating surgeon. Since Amyand's hernia is a rare condition, more research and evidence are needed before definitive guidelines can be made.

Table 1

Classification	Description	Surgical management
Type 1	Normal appendix in an inguinal hernia	Hernia reduction, mesh repair
Type 2	Acute appendicitis in an inguinal hernia, without abdominal sepsis	Appendectomy, primary repair of hernia without mesh
Type 3	Acute appendicitis in an inguinal hernia, with abdominal wall or peritoneal sepsis	Laparotomy, appendectomy, primary repair without mesh
Type 4	Acute appendicitis in an inguinal hernia, with abdominal pathology	Manage as Type 1-3, investigate pathology as needed



Fig:1 CT Showing Tubular structure in hernia sac



Fig 2 Appendix with perforation

REFERENCES

1. Michalinos, A., Moris, D., & Vernadakis, S. (2014). Amyand's hernia: a review. *The American Journal Of Surgery*, 207(6), 989-995. doi:10.1016/j.amjsurg.2013.07.043
2. Meinke A. K. Review article: Appendicitis in groin hernias. *Journal of Gastrointestinal Surgery*. 2007;11(10):1368–1372. doi: 10.1007/s11605-007-0160-9.
3. Tsang, W., Lee, K., Tam, K., & Lee, S. (2014). Acute appendicitis complicating Amyand's hernia: imaging features and literature review. *Hong Kong Medical Journal*, 20(3), 255-257. doi:10.12809/hkmj133971
4. Abu-Dalu, J., & Urca, I. (1972). Incarcerated inguinal hernia with a perforated appendix and periappendicular abscess: Report of a case. *Diseases Of The Colon & Rectum*, 15(6), 464-465. doi: 10.1007/bf02642658
5. Tubbs, S. (2014). Amyand's hernia: A review. *Medical Science Monitor*, 20, 140-146. doi:10.12659/msm.889873
6. Sharma, H., Gupta, A., Shekhawat, N., Memon, B., & Memon, M. (2006). Amyand's hernia: a report of 18 consecutive patients over a 15-year period. *Hernia*, 11(1), 31-35. doi: 10.1007/s10029-006-0153-8
7. Cankorkmaz, L., Ozer, H., Guney, C., Atalar, M., Arslan, M., & Koyluoglu, G. (2010). Amyand's hernia in the children: A single center experience. *Surgery*, 147(1), 140-143. doi: 10.1016/j.surg.2009.09.038
8. Okur, M., Karaçay, Ş., Uygun, İ., Topçu, K., & Öztürk, H. (2013). Amyand's hernias in childhood (a report on 21 patients): a single-centre experience. *Pediatric Surgery International*, 29(6), 571-574. doi:10.1007/s00383-013-3274-z
9. Losanoff, J., & Basson, M. (2008). Amyand hernia: a classification to improve management. *Hernia*, 12(3), 325-326. doi: 10.1007/s10029-008-0331-y
10. Thomas WEG, Vowles KDJ, Williamson RCN. Appendicitis in external hernia. *Ann R Coll Surg Engl* 1982;64:121–2.