Kathmandu University Medical Journal (2009), Vol. 7, No. 2, Issue 26, 143-144

Case Note

Amyand's hernia in infant: A rare entity

Upadhyaya VD[1], Kumar V[1], Srivastava P[2], Gangopadhyaya AN[3]

[1]Senior Resident, [2]Lecturer, [3]Professor, Department of Paediatric Surgery, IMS, BHU, Varanasi, India

Abstract

The chance of vermiform appendix lying with in a hernial sac is 1% or less and is known as Amyand's hernia and it is very rare in infant and neonate. Till date, only twenty cases had been reported in English literature. We are reporting a rare case of Amyand's hernia where appendix was present in right inguinal sac of non-obstructed inguinal hernia in a seven month old male infant during operation. The appendectomy was done along with right inguinal herniotomy. In most of the reported cases, appendix was inflamed[6, 10, 11, 12, 13] or perforated, expect in one case where appendix was not inflamed but patient presented with inguinal hernia. This case is reported because of the rarity of Amyand's hernia in infant, the appendix was not inflamed, hernia was not obstructed, and whether in such types of cases appendix should be preserved or not.

Key words: Amyand's hernia, infant, appendectomy

Inguinal hernia may display very unusual sac contents. Ovary, fallopian tube, urinary bladder, incarcerated bladder diverticula, large bowel diverticula with the form of diverticulitis or abscess, Meckel's diverticulum (Littre hernia) or foreign bodies (e.g., fishbones) have been rarely reported[1,2]. The presence of the appendix within an inguinal hernia has been referred to as "Amyand's hernia" (AH) to honour Claudius Amyand. Amyand was the first to describe the presence of a perforated appendix within the inguinal hernial sac of an eleven-year old boy and performed a successful transherniotomy appendicectomy in 1735[3]. AH is extremely rare in children, especially in infants and neonates[4]. We are presenting a case of AH in an infant with normal appendix in the hernial sac till now less than twenty cases of AH are reported in English literature[5, 6].

Case report

A seven month old male infant was operated electively for right sided inguinal hernia. Patient had a history of recurrent pain in right inguinal region on and off. No history of vomiting, fever or acute abdomen was present. On exploration appendix was adherent to the hernial sac. The appendix was dissected and freed from the sac and appendectomy was done. The sac was transfixed and ligated. The wound was closed in layer. Patient was kept nil by mouth for two days and discharged uneventfully on fourth post-operative day. Patient is doing well in follow-up.

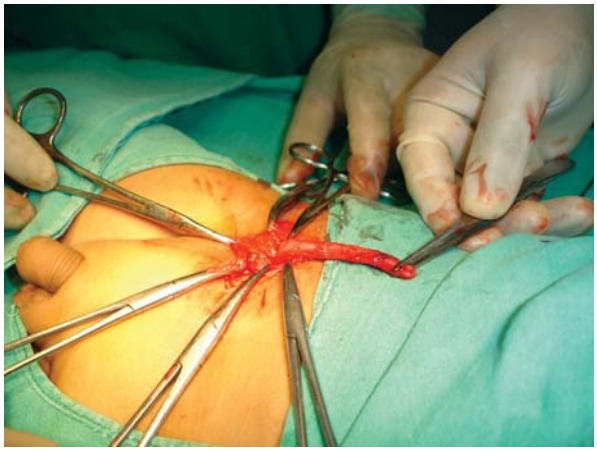

Fig 1: Showing the normal appendix peeping out of the inguinal region with in the inguinal hernial sac.

Discussion

A hernia is defined as the protrusion of a viscus or part of a viscus through the walls of its containing cavity. The presence of the appendix within an inguinal hernial sac is referred known as "Amyand's hernia". The incidence of having a normal appendix within the hernial sac varies from 0.5% to 1%, whereas only 0.1% of all cases of appendicitis present in an inguinal hernia, underscoring the rarity of the condition[7, 8]. AH in paediatric age group is very rare and it is extremely rare in infants[4]. Very few

Correspondence
Dr. Vijay Upadhyaya
Department of Paediatric Surgery
IMS, BHU, Varanasi, India
E-mail: upadhyayavj@rediffmail.com

cases of Amyand's hernia had been reported in infants and only two cases of AH had been reported in neonate[4]. The majority of the reported cases present with the features of an obstructed or strangulated inguinal hernia or with or without features of appendicitis[4, 7,9, 10, 11, 12, 13]. Even acute appendicitis or perforation of the appendix within the sac simulates perforation of the intestine within the hernia, and does not have specific symptoms or signs, but we are reporting a case of incidental finding of appendix in hernial sac. Due to these facts it is very difficult to reach a clinical diagnosis of Amyand's hernia preoperatively. In fact, the diagnosis is made intra-operatively as the patient undergoes surgical exploration for a complicated inguinal hernia as in present case where appendix was incidentally found in hernial sac. A preoperative computed tomography scanning of the abdomen could be helpful for diagnosis, but this is not a routine practice after the clinical suspicion of a complicated inguinal hernia[14]. In most of the reported series appendix was inflamed or incarcerated[6,10-13] in a hernial sac, but in present case appendix was not inflamed. It is difficult to determine whether a primary visceral inflammation, which could be referred to as appendicitis, is the pathological mechanism, or if the primary event is strangulation of the herniated appendix, leading subsequently to ischemic necrosis and secondary inflammation. The presence or absence of inflammation of the appendix is a very important determinant of appropriate treatment. The literature further suggests that manipulation of a normal appendix may provoke secondary appendicitis[15], suggesting that one should proceed with an incidental appendicectomy as we have done in present case. However, this argument seems to be without any scientific evidence, as, in the era of laparoscopic surgery, manipulation of the normal appendix with instruments during diagnostic laparoscopy is very common and to the best of our knowledge, has not increased the incidence of appendicitis but however it is better to remove appendix because of its potential complication.

Conclusion

Amyand's hernia is extremely rare in infants and usually presents with symptoms of strangulated inguinal hernia and should be kept in differential diagnosis of strangulated hernia. If Amyand's hernia is found incidentally, we suggest appendectomy should be done along with herniotomy, to avoid recurrence of appendicitis in future.

References

1. Gurer A, Ozdogan M, Ozlem N, Yildirim A, Kulacoglu H, Aydin R. Uncommon content in groin hernia sac. Hernia. 2006; 10:152-5.
2. Greenberg J, Arnell TD. Diverticular abscess presenting as an incarcerated inguinal hernia. Am Surg. 2005; 71:208-9.
3. Orr KB. Perforated appendix in an inguinal hernial sac: Amyand's hernia. Med J Aust. 1993; 159:762-3.
4. Livaditi E, Mavridis G, Christopoulos-Geroulanos G. Amyand's hernia in premature neonates: report of two cases. Hernia. 2007; 11(6):547-9.
5. Ashraf HM, Ibrahim FR, Talal A. Scrotal appendicitis mimicking acute testicular torsion in a neonate. Ann Saudi Med. 2000; 20:55–6.
6. D'Alia C, Lo Schiavo MG, Tonante A, Taranto F, Gagliano E, Bonnano L et.al. Amyand's hernia: case report and review of the literature. Hernia. 2000; 7:89–91.
7. Logan MT, Nottingham JM. Amyand's hernia: a case report of an incarcerated and perforated appendix within an inguinal hernia and review of the literature. Am Surg. 2001; 67:628-9.
8. Thomas WE, Vowles KD, Williamson RC. Appendicitis in external herniae. Ann R Coll Surg Engl. 1982; 64:121-2.
9. Nigri G, Costa G, Valabrega S, Aurello P, D'Angelo F, Bellagamba R, et al. A rare presentation of Amyand's hernia. Case report and review of the literature. Minerva Chir. 2008; 63(2):169-74.
10. Salemis NS, Nisotakis K, Nazos K, Stavrinou P, Tsohataridis E. Perforated appendix and periappendicular abscess within an inguinal hernia. Hernia. 2006; 10(6):528-30.
11. Solecki R, Matyja A, Milanowski W. Amyand's hernia: a report of two cases. Hernia. 2003; 7(1):50-1.
12. Kidmas AT, Iya D, Yilkudi MG, Nnadozie U. Acute appendicitis in inguinal hernia: report of two cases. East Afr Med J. 2004; 81(9):490-1.
13. Coulier B, Pacary J, Broze B. Sonographic diagnosis of appendicitis within a right inguinal hernia (Amyand's hernia). J Clin Ultrasound. 2006; 34(9):454-7.
14. Luchs JS, Halpern D, Katz DS. Amyand's hernia: prospective CT diagnosis. J Comput Assist Tomogr.2000; 24:884-6.
15. Ofili OP. Simultaneous appendectomy and inguinal herniorrhaphy could be beneficial. Ethiop Med J. 1991; 29:37–8.