Volume : 2 | Issue : 4 | April 2013 • ISSN No 2277 - 8160

Research Paper | Medical Science

Amyand's Hernia: An Interesting and Rare Case Report

Dr. Padmakar K. Baviskar	Professor of surgery, Rural Medical College, Pravara Institute of Medical Sciences, Loni, Tal: Rahata, Dist: Ahmednagar. PIN: 413736
Dr.Bharati P. Baviskar	Asso. Professor of Pathology, Rural Medical College, Pravara Institute of Medical Sciences, Loni, Tal: Rahata, Dist: Ahmednagar. PIN: 413736
Dr. Mandar P. Baviskar	Asstt. Lecturer, Rural Medical College, Pravara Institute of Medical Sciences, Loni, Tal: Rahata, Dist: Ahmednagar. PIN: 413736

KEYWORDS: Amyand's hernia, Amyand's appendicitis

INTRODUCTION

Inguinal hernia repair is one of the most common operations in surgical practice. In spite of its great incidence, hernias often pose a surgical dilemma, even for the skilled surgeon. The unexpected hernial sac content can create problems requiring modification of the treatment. Amyand's hernia is one such case which requires individualized attention to decide how to manage both the appendix and the hernia. Clinical scrutiny, a high index of suspicion for surgical comorbidities, and a common sense approach may improve the final outcome. We report a rare case of hernial content i.e. vermiform appendix with acute appendicitis (Amyand's hernia) with review of relevant literature.

CASE HISTORY

A 43 year-old male, presented with right groin pain, tenderness and swelling for three days. There was no history of trauma to the inguinal region or lower abdomen on right side. Abdominal pain was continuous and increasing. The patient complained of anorexia, but had no complaints of vomiting and diarrhea.

On admission the patient was mildly febrile (38.7 0Celsius) with a painful, non-reducible mass in the right inguinal region with signs of mild inflammation. There was a marked tenderness on palpation of the right lower abdomen. Right sided hemiscrotum was mildly painful.

Plain abdominal x-ray taken in erect posture showed no fluid-air levels. White blood cells were elevated (12000/mm3) with 80% Polymorphonuclear cells. Urine routine examination and Blood chemistry were within normal limits. After necessary preparations surgical exploration was performed under general anesthesia. Inguinal canal is opened through routine oblique incision taken over the right inguinal region. The hernia sac was opened **[Fig.1]** and we found the inflammed vermiform appendix in it **[Fig. 2].** The tip and small distal part of the appendix was inflammed and remaining part of the appendix was replaced by cord like fibrous tissue and was attached to the coecum**[Fig. 3].** These structures were in the internal ring region of the sac(neck) thus blocking it. Appendectomy and high ligation of hernia sac followed by Herniorrhaphy was performed. Antibiotics, (Inj. Cefotaxim 1gm 12 hourly IV for 3 days and Inj. Metronidazole 500 mg, 8 hourly IV for 3 days), were administered. Histopathology of the specimen confirmed the diagnosis of acute appendicitis. Patient had uneventful postoperative recovery and no complications were reported in four years of follow up.

DISCUSSION

A hernia is a protrusion of a viscus or part of it through an abnormal opening in the walls of its containing cavity. Commonest site where a hernia can occur is inguinal region (73%). Commonest contents of a hernia sac are omentum and/or small intestine. In Maydl's hernia, (Hernia-in-W), the strangulated loop of the "W" lies within the abdominal cavity which can cause endotoxic shock secondary to peritonitis. In Littre's hernia content of the sac is Meckel's diverticulum.

Presence of vermiform appendix (non-inflamed or inflamed) in inguinal hernia is called Amyand's hernia in honor to surgeon Claudius Amyand . Dr. Amyand first published this case in London in 1735A.D. An 11-year-old boy who presented with inflamed appendix in inguinal hernia sac perforated by a pin. Along with hernia the boy had fistulous abscess. The patient was treated by performing appendiceal resection.

Foreign body (pin) causing Amyand's appendicitis is extremely rare. The base of the appendix and coecum were in the internal ring region of sac, thus blocking the fluid from the hernia sac from returning to the abdominal cavity**.[1,2]**

There are several clinical manifestation of Amyand's hernia: reducible or incarcerated hernia with non-inflamed appendix, or inflamed appendix (hernia appendicitis) and ingested foreign body which may be metallic or non metallic in appendix causing perforation or not. Acute appendicitis in a hernia sac occurs exceptionally. An 80-year-old male patient underwent emergency surgery for an incarcerated right inguinal hernia found to contain a gangrenous appendix **[3]**

Non inflamed appendix in children is found in about 1% of herniotomies, usually as an incidental finding. Inflamed vermiform appendix in inguinal hernia sac (hernia appendicitis or Amyand's appendicitis) is ten-folds rarest **[4,5].**

Fowler's review (1912) collected 63 published cases of pins in the appendix, twenty three of them in children under eleven years of age. In this series only four cases have been of Amyand's hernias. Acute appendicitis within an inguinal hernia accounts for 0.1 % of all cases **[6].**

N. S. Salemis et al reported an extremely rare case of complicated Amyand's hernia. Patient had perforated appendix and periappendicular abscess within a right inguinal hernia sac. He was treated by emergency Appendecectomy and Shouldice's herniorrhaphy. Histology revealed the presence of a villous adenoma near the base of the appendix**.[7]**

K Ballas et al reported a retrospective review of the case histories of 856 inguinal hernia patients (from 1998 to 2007). Information was obtained from their medical records. Unusual hernial contents such as ovary, fallopian tube, epiploic appendagitis, vermiform appendix and acute appendicitis (Amyand's hernia) were found to be documented **[8].**

H. Sharma, A. Gupta et al reported a retrospective analysis of 18 consecutive patients with an Amyand's hernia (from 1991 to 2005).There were 17 men and one woman. None of the patients was diagnosed preoperatively. Operative findings included 11 normal appendices, four inflamed appendices and three perforated appendices in the inguinal hernial sac. Uncomplicated cases were treated with mesh hernioplasty without appedicectomy**[9].**

CONCLUSION

A general surgeon or a superspecialist may encounter unexpected intraoperative findings. It is important to be prepared to identify them and apply the appropriate treatment. Amyand's hernias require individualized attention to decide how to manage both the appendix and the hernia.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the support from the Management of Pravara Medical Trust, PIMS and Principal, Rural Medical College, Loni. We appreciate the help of colleagues in surgery department. We are grateful to the patient for his cooperation and consent.

Photo Legends:

Figure1: Hernial Sac Dissected and opened.



Figure2: Inflamed appendix at the neck of the sac.



Figure3: Gross specimen.



REFERENCES

[1]. Amyand C. : Of an inguinal rupture, with a pin in the appendix caeci, incrusted with stone; and some observations on wounds in the guts. | Philosophical Transactions of the Royal Society of London. 1736;39:329–336. | [2] Sadik S, Llullaku,Nexhmi S, Hyseni, Baton Z Kelmendi, Hysni J , Jashari and Antigona S Hasani.: | A pin in appendix within Amyand's hernia in a six-years-old boy: case report and review of literature. | World Journal of Emergency Surgery 2010, 5:14doi:10.1186/1749-7922-5-14 | | [3] Losanoff, Julian E. Basson, Marc D.: Amyand Hernia: "What Lies Beneathâ" A Proposed Classification Scheme to Determine Management | Source: The American Surgeon, Volume 73, Number 12, December 2007 , pp. 1288-1290(3). | Publisher: Southeastern Surgical Congres. | | [4] Ryan WJ: Hernia of the vermiform appendix. | Ann Surg 1937, 106:135-139. [Pub Med] | [5] Srouji M, Buck BE: Neonatal appendicitis: ischemic infarction in incarcerated inguinal hernia. | J Pediatr Surg 1978, = 13:177-179. [Pub Med] | [6] Fowler RH: Foreign body appendicitis.With especial reference to the domestic pin; an analysis of sixty-three cases. | Ann Surg 1912, 56(3):427-436.[PubMed] | [7] N. S. Salemis et :A Perforated appendix and periappendicular abscess within an inguinal hernia. | Hernia,Volume 10, Issue 6 , pp 528-530 Print ISSN 1265-4906 | Online ISSN 1248-9204. Publisher Springer-Verlag | | [8] K Ballas, Th Kontoulis, Ch Skouras, A Triantafyllou, N Symeonidis, Th Pavlidis, G Marakis, and A Sakad. :Unusual findings in inguinal hernia surgery: Report of 6 rare cases. | Hippokratia. 2009 Jul-Sep; 13(3): 169–171. | | [9]H. Sharma, A. Gupta, N. S. Shekhawat, B. Memon, M. A. Memon :Amyand's hernia: a report of 18 consecutive patients over a 15-year period. | Hernia . February 2007, Volume 11, Issue 1, pp 31-35 | |