

Case Report: Amyand's Hernia

(Incarcerated Right congenital Indirect Inguinal hernia due to Inflamed Appendix)

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ABSTRACT

Introduction: Acute appendicitis is a common condition most often occurring in children and young people. A Congenital Inguinal Hernia is also a common condition to be presented at the surgical clinics, when the hernial contents are usually found to be either a Loop of Bowel, Appendix, Bladder or Omentum, but for it to be presented as an Incarcerated Congenital Indirect Inguinal Hernia due to an Inflamed Appendix (Amyand's Hernia) is a very rare finding indeed and warrants reporting. The incidence of a normal appendix within an inguinal hernial sac is estimated to be approximately 1%, whereas acute appendicitis presented in an inguinal hernia is a very rare event (0.1% of all cases of appendicitis)¹⁻⁵

Amyand's Hernia is named after Claudius Amyand (1680-1740), who was the first one to perform the first recorded successful appendectomy on an 11-year old boy with a perforated appendix within an inguinal hernial sac in 1735^[1].

Of course the clinical presentation varies, depending on the extent of the inflammatory process in the hernial sac and the presence or absence of peritoneal contamination due to perforation.

In our case, it is a 4 year old male child patient, who was presented to the surgical department of the University of Science & Technology Hospital, Sana'a, Yemen, on February 27th 2007, with a right scrotal swelling, which was tender to touch. The child had been crying with abdominal pain during the night and had had two attacks of vomiting. His mother also stated that her child had had a right scrotal swelling since birth.

The case was diagnosed as an Incarcerated Congenital Right Indirect Inguinal Hernia.

During surgery it was discovered to be an Amyand's Hernia (Inflamed appendix in the inguinal hernial sac).

A classical appendectomy and herniotomy was performed. The child was discharged home in good health on the second post operative day, to return for the removal of the stitches on the seventh postoperative day, with uneventful postoperative course.

Method: A 4 year old male child patient was presented at our Surgical Department in the University of Science & Technology Hospital, Sana'a, Yemen, on February 27th 2007, with a right scrotal swelling tender to touch. The mother stated that the child had been crying since the previous night and would not allow her to touch his lower abdomen or genitalia. He had vomited twice since the early morning and was feverish. She admitted that he had had right reducible scrotal swelling since birth.

A clinical diagnosis of Incarcerated Right Congenital Indirect Inguinal Hernia was set.

The family was informed about the diagnosis and the need for an urgent surgical operation to be performed.

Formal consent for the performing of surgery and the use of photographs for academic purposes was obtained from the family.

Laboratory tests done included a FBC and a General urine examination. The results were all within normal limits except for mild leucocytosis (WBC: 11300mm³).

The operation was performed through a right inguinal incision.

Result: Right Indirect Inguinoscrotal Hernia; when the hernial sac was opened, an inflamed appendix was revealed inside.

Conclusion: When performing surgery we have to expect the unexpected. This also applies in paediatric cases of congenital indirect inguinal hernias, especially when the hernia is large or one of a scrotal type; it is better to operate on such cases without delay to decrease the risk of morbidity and mortality.

Keywords: congenital Inguinal hernia, incarcerated, Amyand's Hernia, paediatric, inflamed appendix.

Material and Method

CASE REPORT

On February 27th 2007, a 4 year old male child patient was presented at our Surgical Department in the University of Science & Technology Hospital, Sana'a, Yemen, with a right scrotal swelling, which was tender to touch. His mother reported that the child had started crying the previous night and would not allow her to touch his lower abdomen or genitalia. He had vomited twice since early that morning and was feverish. She admitted that he had had right reducible scrotal swelling since birth.

On examination, it was obvious that the child was in pain. His temperature was 37.9⁰ C and the right lower abdomen was tender on palpation, with an irreducible Right Inguinoscrotal hernia (Fig.1&2).

Investigations were done and apart from mild leucocytosis WBC: 11300mm³ all results were shown to be within normal limits.

A diagnosis of an Incarcerated Right Congenital Indirect Inguinal Hernia was established and an informed consent was signed by the father for both the urgent surgery and the use of photographic evidence for medical purposes.

Results

Operative findings:

Under general anaesthesia a right inguinal incision was made. Once the hernial sac was opened, a red oedematous inflamed appendix spurted out (Fig.3&4).

The appendix shown was twisted on its mesentery. A classical appendectomy was performed, followed by a herniotomy.

The abdomen was closed in layers. The operation and the post operative course of treatment were uneventful.

The child was discharged home on the second postoperative day and returned on the seventh day for the removal of the stitches.

The specimen appendix was sent to histopathology for examination and was proved to be an acutely inflamed appendix (Fig.5&6).

Discussion

It has been said that the pathophysiology of Amyand's Hernia is unknown, but I believe that the cause may be due to a decrease or cut in the blood supply to the appendix as it is incarcerated,

when it passes through the narrow neck of the peritoneal hernial sac together with the spermatic cord. It is also possible that the appendix and its mesentery could become twisted inside the sac, as we found had occurred in this case. The chances of the appendix becoming inflamed will be especially high, when food particles or chyllus are present in the lumen of the appendix.

Clinically it is difficult to diagnose Amyand's Hernia, as the clinical scenario usually supports an incarcerated inguinal hernia and because Amyand's Hernia is so rare that the diagnosis does not come to mind^[1-5]. Whatever the preoperative diagnosis, whether it is an incarcerated inguinal hernia or an acute appendicitis, the treatment should be always a surgical operation to decrease the chance of complications in terms of morbidity and mortality. An incarcerated inguinal hernia, whether it does or does not contain an inflamed appendix, should be operated upon without delay.

With preoperative CT scanning, it is possible to make a preoperative diagnosis^[6], but it is not routine to do a preoperative CT scan when diagnosing every incarcerated inguinal hernia and CT scanners are not available in every hospital.

Conclusion

When performing surgery we have to expect the unexpected. This also applies in paediatric cases of congenital indirect inguinal hernias, especially when the hernia is large or one of a scrotal type; it is better to operate on such cases without delay to decrease the risk of morbidity and mortality.

Conflict of Interest: None declared.

References

1. S. Apostolidis, V. Papadopoulos, A. Michalopoulos, D. Paramythiotis & N. Harlaftis: Amyand's Hernia: A Case Report and Review of the Literature. *The Internet Journal of Surgery*. 2005 Volume 6 Number 1
 2. . Solecki R, Matyja A, Milanowski W: Amyand's hernia: a report of two cases. *Hernia* 2003;7:50-51
 3. D'Alia C, Lo Schiavo MG, Tonante A, Taranto F, Gagliano E, Bonanno L, Di Giuseppe G, Pagano D, Sturniolo G: Amyand's hernia: case report and review of the literature. *Hernia* 2003;7:89-91
 4. Sergey L, Kim A, Bauer J: Perforated appendicitis within an inguinal hernia: Case report and review of the literature. *Am J Gastroenterol* 1997;92:700-702
 5. 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;67:628-629
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6. Luchs JS, Halpern D, and Katz DS: Amyand's hernia: prospective CT diagnosis. J Comput Assist Tomogr. 2000; 24:884-886.



FIG. 1



FIG. 2



FIG. 3

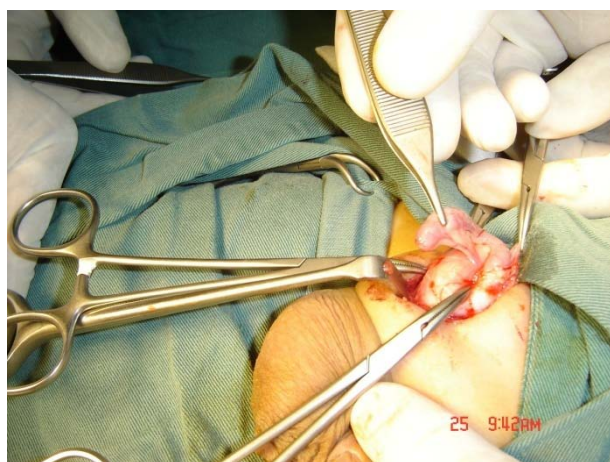


FIG. 4



FIG. 5



FIG. 6