Case report

A rare case report of Amyand hernia in a preterm baby

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Abstract

Amyand hernia is a rare disease seen in approximately 1% of all hernias, complications of it, like acute appendicitis, or perforated appendicitis are even more rare, about 0.1%. Its diagnosis is very difficult in the pre-operative period; it is usually an incidental finding.

Key words

Amyand hernia, Preterm baby, Appendicitis.

Introduction

A hernia is defined as a protrusion of a viscera or a part of viscera through a sac of its containing cavity.

Amyand hernia is a rare form of inguinal hernia containing vermiform appendix as content with or without inflammation occurring in ~1% of inguinal hernia [1]. The incidence is three times higher in children than in adults and most commonly seen in young male patients [2].

Mostly discovered intra-operatively, these hernias are now being frequently diagnosed pre-operatively with Ultrasounds and CT scans. Surgical treatment depends on the condition of the appendix but generally involves appendectomy with some form of hernia repair, with or without mesh based on surgical site contamination risk and surgeon's assessments and expertise.

Case report

A 25 days old pre-term male baby (Period of gestation-29 weeks, normal vaginal delivery) weighing 1700 gm with respiratory distress syndrome with complaining of swelling in the right side inguinal region.

On examination there was 1x1 cm swelling present in the right inguinal region, non-reducible, no signs of inflammation or necrosis present.

Pre-operatively ultrasonography reveals Right inguinal hernia with loops of intestine with viable blood flow and right hydrocele.

Informed consent for the operative procedure was obtained from the relatives.

He underwent herniotomy through oblique incision over the right inguinal region which revealed APPENDIX as a content which was not inflammed or perforated, indicating Type I Amyand's Hernia according to Losanoff and Basson classification, therefore he underwent reduction of hernial content without appendectomy with herniotomy.

Post-operative period was uneventful.

Discussion

Amyand hernia is a rare condition, which represents two of the most common diseases a general surgeon has to face. Standardization of treatment is still ongoing and more prospective studies need to be done. This case demonstrates that this pathology must remain in the mind of the surgeons especially in the event of a strangulated hernia and offer a comprehensive review.

Claudius Amyand (1660-1740), a French surgeon working at St George's and Westminster hospitals in London, performed the first successful appendectomy in 1735, on an11-year-old boy who presented with an inflamed, perforated appendix in his inguinal hernia sac [3]. The hernia hence received its name after this pioneer surgeon. The incidence of amyand hernia according to literature varies between 0.19% - 1.7% [4].

Amyand hernia is three times more common in children than in adults due patent processus vaginalis in pediatric age group. Amyand's hernia is commonly an intra-operative diagnosis as Computed Tomography is only sensitive imagine technique during pre-operative period which is not routinely performed in hernia patient.

Treatment of Amyand hernia depends upon the type according to Losanoff and Basson classification [5] (**Table – 1**).

Table – 1: Losanoff and Basson classification [5].

Classification	Description	Surgical Management
Type I	Normal appendix within an inguinal hernia	Hernia reduction, mesh repair, appendectomy in young patients
Type II	Acute appendicitis within an inguinal hernia, no abdominal sepsis	Appendectomy through hernia, primary endogenous repair of hernia, no mesh
Type III	Acute appendicitis within an inguinal hernia, abdominal wall or peritoneal sepsis	Laparotomy, appendectomy, primary repair of hernia, no mesh
TYPE IV	Acute appendicitis within an inguinal hernia, related or unrelated abdominal pathology	Manage as types 1 to 3 hernia, investigate or treat second pathology as appropriate

Conclusion

Amyand hernia is a rare condition and represents two of the most common diseases a general surgeon has to face (hernia and appendicitis). Management involves a laborious surgical technique, and its definitive treatment will depend on the surgeon's experience and clinical scenario. Seven years ago, standardization of

treatment for this clinical entity began with Losanoff and Basson, although more prospective trials are needed to validate their classification and the modified version of Rikki.

In the clinical setting of an incarcerated complicated or strangulated inguinal hernia, the initial approach should consider imaging studies; USG or CT can guide the surgical plan, and enables the possibility of identifying involved intra-abdominal organs. More studies are required about preoperative diagnosis utility of both. It is important to emphasize that no delay in definitive treatment is allowed because consequences can be disastrous.

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