

## Case Report

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# Right sided Amyand's hernia: a rare case report

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### ABSTRACT

The presence of vermiform appendix in inguinal hernia whether inflamed or not is known as Amyand's hernia, it is very rare occurring in less than 1% of patients operated for repair of inguinal hernia. Though it was first described 275 years ago in an 11 year old boy, it remains relatively unknown because of the rarity of its occurrence. We present a case of Amyand's hernia, where normal appendix was found intraoperatively in right sided inguinal hernia repair in a 50 year old male and briefly review the literature on the topic.

**Keywords:** Appendix, Inguinal hernia, Right side, Amyand's hernia

### INTRODUCTION

Inguinal hernia is most common hernia in both male and females. Despite the fact that inguinal hernia repair is very common operation done in surgical practice, this surgery can pose technical difficulties even for experienced surgeons. A surgeon may encounter an unexpected intraoperative finding in the form of uncommon contents of hernial sac which in our case was appendix. The presence of Appendix in the hernial sac is called Amyand's hernia which is very rare and very few cases have been reported in literature. Preoperative diagnosis for the presence of such contents is difficult as imaging is least done in the hernia diagnosis since it's a clinical condition. We hereby present a case of Amyand's hernia discovered incidentally at the time of repair of right sided inguinal hernia.

### CASE REPORT

A 50 year old gentleman, a diagnosed case of chronic kidney disease and systemic hypertension presented to the outpatient department with the complaints of a reducible swelling in the right inguinal region for the last two years. The swelling was non tender, reducible and

cough impulse could be elicited. A diagnosis of right sided complete indirect inguinal hernia was made and the patient was taken up for elective right mesh hernioplasty. The operative findings revealed an indirect hernia. Upon opening the hernial sac contents were noted to be the caecum and vermiform appendix, however there were no inflammatory changes of the appendix or caecum (Figure 1).



Figure 1: Amyand's hernia.

The sac contents were reduced into the peritoneal cavity and hernial sac was ligated with a non-absorbable suture. A Lichtenstein repair was done with a non-absorbable synthetic mesh. Postoperatively patient had uneventful recovery and was discharged in a satisfactory condition.

## DISCUSSION

A hernia is defined as the protrusion of a viscous or part of a viscous through the walls of its containing cavity. Most common hernia in both males and females is inguinal hernia. In majority of cases, bowel and omentum is the content of hernial sac but in some cases unusual sac contents can be found intraoperatively during the operations of inguinal hernia like ovary, fallopian tube, urinary bladder, colonic diverticula or Meckel's diverticulum. One of the very rare contents which can be present in hernial sac is appendix and its presence intra operatively during a inguinal hernia repair is called "Amyand's hernia". It is more common on right side as compared to left side.<sup>1</sup> Claudio Amyand, a French born English surgeon performed the first successful appendectomy in 1735, on an 11 year old boy who presented with an inflamed perforated appendix in his inguinal hernia sac. Since then, the presence of veriform appendix in a hernia sac has been referred to as "Amyand's" hernia.<sup>2</sup> Amyand hernia usually occurs on the right side, probably due to normal anatomic position of the appendix. However, "Amyand's hernia" has also been reported on the left side which may be associated with situs inversus, intestinal malrotation or mobile caecum.<sup>3</sup> The diagnosis in majority of cases is usually made intraoperatively on surgical exploration of inguinal hernia but ultrasound or computed tomography scan of the abdomen can play an important role in diagnosing appendix in the sac preoperatively.<sup>4</sup> There are no fixed principles for the management of Amyand's hernia. However there are some factors which may have impact on the outcome of patients who are operated for Amyand's hernia, these factors are age of the patient, anatomic condition of the tissue, whether appendix is inflamed or not and contamination of surgical field during operation.<sup>5</sup>

Regardless of general principles, various case scenarios have to be considered. Losanoff and Basson have laid down the classification for identification and treatment of Amyand's hernias.<sup>6,7</sup> They classified Amyand's hernia into four types from type 1 to 4. As per identification, type 1 hernia has a normal appendix in an inguinal hernia while type 2-4 has acute appendicitis within an inguinal hernia sac. Of these types 2-4, type 2 has an inflamed nonperforated appendix, type 3 has a perforated appendix

and type 4 is complicated with intra-abdominal pathology. As per treatment, type 1 is managed with a mesh hernioplasty without appendectomy. Type 2-4 hernias are managed with appendectomy and primary repair (without mesh). Our patient had a type 1 Amyand's hernia as per this classification system and underwent a mesh repair without an appendectomy.

To conclude Amyand's hernia is an uncommon condition which offers variation in their presentation and respective management. The purpose of reporting this case is the rare occurrence of Amyand's hernia which the surgeon may encounter intraoperatively during the repair of inguinal hernia and the possibility of Amyand's hernia should be kept in mind while operating on operating obstructed or strangulated inguinal hernia. However it is important to be aware of all clinical settings with which the Amyand's hernia may present and an appropriate and individualized approach should be applied.

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