

# Intraoperative finding of Amyand's hernia in a recurrent inguinal hernia

## Report of a case



Ann. Ital. Chir., 2012 83: 583-584  
pii: S0003469X1301909X

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### Intraoperative finding of Amyand's hernia in a recurrent inguinal hernia. Report of a case

**INTRODUCTION:** *The finding of the vermiform appendix within an inguinal hernia is a rare entity<sup>2,3</sup>. An inflamed or non-inflamed vermiform appendix in an inguinal hernia sac is named Amyand's hernia in honor to the surgeon Claudius Amyand who published the first case of perforated appendicitis within inguinal hernia in a boy caused by ingested pin.*

**OBJECTIVE:** *The aim of this study was to report our intraoperative findings with this entity.*

**MATERIAL AND METHODS:** *We report a case of 47 year old male patient with a recurrent right inguinal hernia. We were not able to review the previous operative notes. The patient underwent an elective redo-redo inguinal hernia repair under local anesthesia with I.V. sedation; a normal appearing appendix with an adhesive plug were explored within a direct hernia sac. Adhesions were divided by sharp dissection, an appendectomy was performed and the plug excised. A modified Bassini repair was performed and the patient admitted to the hospital.*

**RESULTS:** *The patient's postoperative course was unremarkable; he was discharged home on postoperative day 3. At one week follow-up we found no complications.*

**CONCLUSION:** *The finding of the appendix in an inguinal hernia is a rare entity that is difficult to diagnose preoperatively. Treatment includes appendectomy and herniorrhaphy. The use of prosthetic mesh depends on the status of the appendix, patient's condition and hernia findings.*

**KEY WORDS:** Amyand's hernia, Inguinal hernia

## Introduction

Claudius Amyand (1660-1740), also known as "surgeon-in-ordinary" or "sergeant surgeon" to King George II of England, defined an acutely inflamed appendix located in the inguinal canal in an 11-year-old boy on 6 December 1735<sup>1</sup>.

We report a case of a patient with recurrent inguinal hernia who underwent an elective redo-redo right inguinal hernia repair and appendectomy.

## Case Report

A 47-year-old man presented to the office with recurrent right inguinal hernia; no other complaints. The patient had a Bassini repair 12 months prior and a recurrent right inguinal hernia repair with plug only 6 months prior. On the physical examination, a slightly tender and reducible right inguinal hernia was detected. Physical examination was otherwise unremarkable. Preoperative scrotal ultrasonography confirmed a recurrent right inguinal hernia and showed no abnormality in the testis. At the operation, an adhesive plug and normal appendix were found within a direct hernia sac (Fig. 1).

Adhesions were divided by sharp dissection and the testis was left in the scrotum. The appendix showed minimal serosal injuries at the end of dissection; an appendectomy was performed and the remnant stump and caecum were brought back into the abdominal cavity. The hernia repair was achieved by a modified Bassini repair:

Pervenuto in Redazione Febbraio 2012. Accettato per la pubblicazione Maggio 2012

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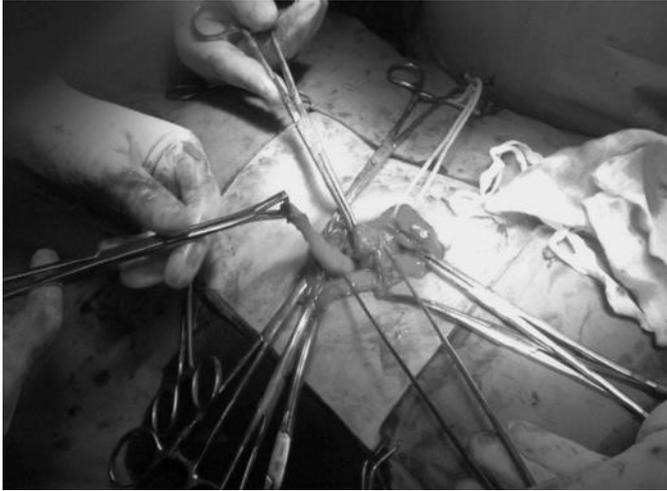


Fig. 1

a continuous suture reinforced by interrupted prolene sutures. The patient was admitted to the hospital and discharged home on postoperative day 3 with an unremarkable course. Pathology report showed a normal appendix.

## Discussion

Diagnosis of Amyand's hernia, either a normal or an inflamed appendix in the hernia sac, is almost always done intraoperatively. Physical examination is not able to detect hernia sac content. In the evaluation of groins and scrotum, ultrasonography may not be enough. As a matter of fact, in our case, ultrasound imaging did not give additional information preoperatively except for the exhibition of a recurrent hernia. Strangulated hernia, strangulated omentocele, acute hydrocele, Richter's hernia, testicular tumor with hemorrhage, inguinal adenitis, and epididymitis may be involved in the differential diagnosis of Amyand's hernia. In the presence of vermiform appendix in the hernia sac, hernia repair with a mesh without appendectomy is recommended by most authors [5]. Appendectomy through the herniotomy with primary hernia repair using the same incision is used for the treatment of hernial appendicitis<sup>4</sup>. However, in case of inflamed appendix in the sac, appendectomy and hernia repair without mesh is suggested by some authors<sup>4,6</sup>. Nonetheless, some prefer to perform both appendectomy and mesh repair in the treatment of inflamed appendix in the inguinal hernia sac and recommend intravenous broad-spectrum antibiotics for at least 3-5 days to prevent a possible mesh colonizations<sup>7,8</sup>. In our case, even if the appendix appeared initially normal and we found it attached to a previously placed plug (mesh); after the dissection of these structures the appendix showed multiple serosal injuries and it was difficult for us

to judge its degree of inflammation. Therefore, we performed an appendectomy and did not use a mesh for the hernia repair.

Appendicitis with an Amyand's hernia is rare, but misdiagnosis is not rare. Surgical treatment is appendectomy with herniorrhaphy. Application of mesh in the hernia repair should depend on the degree of inflammation of appendix and the presence of incarceration of hernia sac.

## Riassunto

Descriviamo un caso di ernia inguinale recidiva con riscontro intraoperatorio di appendice nel sacco erniario, per la quale abbiamo eseguito una appendicectomia e riparazione della ernia senza protesi con la tecnica di Bassini. Il riscontro della appendice, infiammata o meno, nel contenuto del sacco di una ernia inguinale è una rara evenienza. Il nome deriva da Claudius Amyand (1660-1740) che per primo la descrisse.

Il trattamento di tale patologia coinvolge alcuni riscontri intraoperatori specifici. In caso di appendicite acuta è ovviamente necessario proseguire con appendicectomia e, di conseguenza, la riparazione della ernia inguinale dovrebbe evitare l'uso di protesi. Alcuni autori suggeriscono l'irrigazione della ferita chirurgica con soluzione antibiotica e successiva implementazione di protesi con buoni risultati e minore rischio di recidive.

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