ANNALI ITALIANI DI CHIRURGIA

Digital Edition
e-publish on-line
ISSN 2239-253X

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Amyand Hernia in an elderly patient

Ann Ital Chir, Digital Edition 2018, 7
pii: S2239253X18028475 - Epub, May 30
free reading: www.annitalchir.com

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Amyand Hernia in an elderly patient

INTRODUCTION: *Inguinal hernia is one of the most common surgical entities and often poses technical dilemmas, even for the experienced surgeon. Amyand's hernia is an inguinal hernia; a protrusion of abdominal cavity content through the inguinal canal, with a vermiform appendix. Case report: A 77 years old Caucasian male was referred to our institution for the evaluation of a recurrent right inguinal hernia. During the surgery, we discovered a rare type I Amyand hernia. Following the guidelines we performed, a prosthetic tension-free inguinal ernioplasty without appendectomy.The patient was discharged on the first post-operative day. The follow-up at 7 days was uneventful.*
DISCUSSION: *First described by Claudius Amyand (1660-1740), a French born English surgeon, who successfully performed the first reported appendectomy for inflamed appendix encountered during herniotomy on an 11 year-old boy in 1735 at St George's hospital.The incidence of Amyand's hernia is between 1%. The association of appendicitis is even rarer and reported to be around of 0.1%. Losanoff and Basson proposed a classification scheme to determine the surgical management of Amyand's hernia, depending on the status of the appendix*

KEY WORD: Amyand Hernia, Appendix, Elderly

Introduction

Inguinal hernia is one of the most common surgical entities and often poses technical dilemmas, even for the experienced surgeon. It may contain segments of small and large bowel, the great omentum and in very rare cases the vermiform appendix.
Amyand's hernia is an inguinal hernia; a protrusion of abdominal cavity content through the inguinal canal, with a vermiform appendix. The occurrence of this condition is rare, even more so with concurrent incarcerated appendicitis. The entity of Amyand hernia has an incidence of 1% and is complicated by acute appendicitis in 0.08–0.13% of cases [1].

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We report a case of Amyand hernia in a recurrent inguinal hernia, presenting difficulties in diagnosis and treatment of this surgical problem

Case Report

A 77 years old Caucasian male was referred to our institution for the evaluation of a recurrent right inguinal hernia.
At the clinical examination, the patient showed a palpable inguinal swelling, evocable to the Valsalva maneuver and well reducible in the abdomen without any sign of localized peritonism.
Considering the clinic examination, typical for inguinal hernia, we decided to perform inguinal hernioplasty without further diagnostic tests.
During the surgery we discovered a rare type I Amyand hernia [2]. Following the guidelines we performed a prosthetic tension-free inguinal ernioplasty without appendectomy [3-5].

The patient was discharged on the first post-operative day. The follow-up at 7 days was uneventful.

Discussion

First described by Claudius Amyand (1660–1740), a French born English surgeon, who successfully performed the first reported appendectomy for inflamed appendix encountered during herniotomy on an 11 year-old boy in 1735 at St George's hospital. The case was published in Philosophical Transactions of the Royal Society of London [6].

The incidence of Amyand's hernia is between 1%. The association of appendicitis is even rarer and reported to be around of 0.1%.

The majority of cases are right-sided, which is understandable in view of the normal anatomy of the appendix. Additionally, right inguinal hernias are more common than the left ones.

The suggested explanations for left-sided Amyand's hernia are situs inversus, malrotation, mobile caecum and excessively long appendix [7].

The clinical picture of Amyand's hernia is that of inguinal hernia and depends mainly on the inflammatory condition of the appendix.

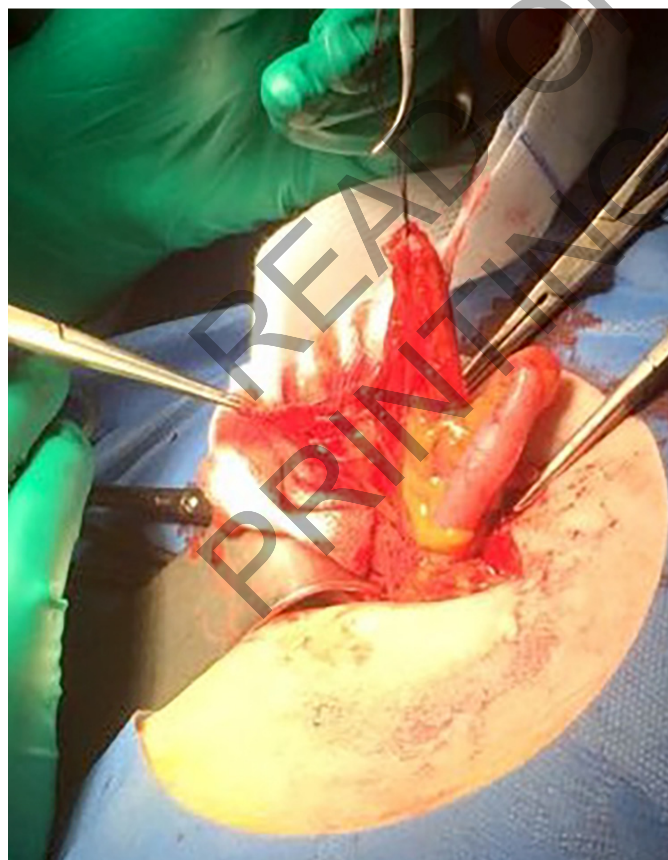

Fig. 1: Right type I Amyand hernia

In view of this clinical presentation, almost all cases of Amyand's hernias are diagnosed intra-operatively. Pre-operative diagnosis can be made using ultrasound and CT scan . However, these investigations are not routinely done after clinical diagnosis of inguinal hernia. Only a few cases have been reported where diagnosis was made pre-operatively. Amyand's hernia has also been diagnosed as incidental finding in barium enema .

Losanoff and Basson proposed a classification scheme to determine the surgical management of Amyand's hernia, depending on the status of the appendix

The absence of inflammatory changes in Type 1 approximates elective hernioplasty. Using a permanent prosthesis in such cases carries the expectation of an improved longevity of the repair because it avoids tension on the suture lines and circumvents the metabolic problems related to collagen deficiency known to exist in hernia patients. Type 2 Amyand hernias are those in which the septic changes are confined to the hernia sac. Such hernias carry a higher risk of mesh infection. Thus, repairs using endogenous tissues or acellular collagen products (currently thought to be more resistant to infection than standard prosthetic materials carry the expectation of a decreased morbidity, albeit at the risk of an increased recurrence rate. Type 3 represents a scenario where the sepsis has spread beyond the hernia sac and requires more extensive surgery. Published examples in the setting of Amyand hernia include exploratory laparotomy for source control, orchiectomy, right hemicolectomy, or debridement of necrotizing fasciitis. It is common sense to defer the hernioplasty if the patient is critically ill or unstable. Type 4 of Amyand hernia includes all cases where a serious, complicating pathology exists outside of the hernia sac. Reported conditions in patients presenting with incarcerated Amyand hernias include appendiceal mucocele in the hernia sac associated with coexisting colon cancer , appendix with fecaliths and coexisting diverticulitis of the colon, adenocarcinoma of the vermiform appendix, and inguinal appendicocele with pseudomyxoma peritonei. Here, too, hernioplasty may be contraindicated if the patient's condition is poor or life expectancy limited.

Amyand's hernia" is a rare entity, which is hard to diagnose preoperatively. Once the appendix is the content of the hernia sac, chances of complications are higher. Treatment involves appendectomy in inflammed appendix through the herniotomy incision itself with meticulous hernia repair but in this case is better to do not use a prosthetic material due to the high risk of mesh reinfection [8].

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Riassunto

INTRODUZIONE: l'ernia inguinale è uno dei piu' comuni problemi chirurgici e spesso pone difficoltà tecniche,

anche per il chirurgo esperto. L'ernia di Amyand è un'ernia inguinale all'interno del cui sacco è contenuta l'appendice vermiforme.
CASO CLINICO: un uomo di 77 anni giunge alla nostra osservazione per la valutazione di un'ernia inguinale destra ricorrente. Durante l'intervento abbiamo scoperto un raro tipo di ernia di Amyand. Seguendo le linee guida abbiamo eseguito un'ernioplastica inguinale 'tension-free' con utilizzo di protesi evitando l'appendicectomia. Il paziente è stato dimesso il primo giorno post-operatorio e ricontrollato dopo 7 giorni in regime ambulatoriale.
DISCUSSIONE: descritta per la prima volta da Claudius Amyand (1660-1740), un chirurgo emigrato in Inghilterra ma di origine francese, che eseguì con successo la prima appendicectomia durante un intervento di ernioplastica su un piccolo paziente di 11 anni nel 1735 all'ospedale di St George. L'incidenza dell'ernia di Amyand è dell'1%. L'associazione con un quadro di appendicite è ancora più rara, intorno alla 0,1%. Losanoff e Basson hanno proposto uno schema di classificazione per determinare la gestione chirurgica dell'ernia di Amyand, a seconda che ci si trovi di fronte ad un quadro di appendicite o meno. Nel primo caso è indicata l'appendicectomia evitando l'utilizzo di materiale protesico per la cura dell'ernia.

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Commento e Commentary

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Già Ordinario di Chirurgia Generale

Il reperto dell'appendice vermiforme all'interno di un sacco erniario di destra, sia inguinale che crurale, non è eccezionale in letteratura, e sempre descritta come un evento casuale, "a sorpresa". Infatti l'eventuale sintomatologia dolorosa nel caso di concomitante flogosi dell'appendice dislocata nel sacco erniario viene per lo più attribuita preoperatoriamente ad una complicanza dell'ernia stessa, giustificando l'urgenza dell'intervento.
In una esperienza personale di circa 48 anni fa – non pubblicata – c 'è il caso di un'ernia crurale destra, manifestatasi come tumefazione inguino-crurale destra, fissa, duro parenchimatosa e non dolente in una donna anziana. La diagnosi di ernia crurale fu chiarita solo all'intervento esploratore perché l'esame ecografico non era ancora una procedura disponibile, e non era possibile altrimenti la diagnosi differenziale con una linfoadenopatia neoplastica. La sorpresa fu quella di trovare all'interno del sacco un'appendice completamente mummificata, con il cieco indenne appena appoggiato e fisso all'orificio erniario interno. Naturalmente venne effettuata l'appendicectomia secondo i canoni tecnici, prima di provvedere alla plastica per sutura della porta erniaria.
Il caso descritto dagli Autori riguardava un uomo di 77 anni, e prescindendo dal fatto che ogni operatore dispone di elementi di valutazione soggettivi che nel singolo caso ne orientano le decisioni, è problematico concordare con la decisione di non aver eseguito l'appendicectomia. Mentre nell'esperienza ricordata in bibliografia[4] è comprensibile la decisione di soprassedere all'appendicectomia per assenza di flogosi appendicolare data l'età estremamente giovane dei due bimbi, di cui uno addirittura neonato, nel caso invece di un adulto tale decisione appare criticabile, tenuto conto che nell'anziano la sintomatologia di una eventuale appendicite può sfuggire ai normali criteri semeiologici. Nel caso specialmente di pazienti anziani la condivisa prassi di asportare comunque a scopo profilattico qualsiasi appendice in corso di laparotomie per altre indicazioni troverebbe nell'anziano una motivazione in più.

* * *

The finding of the vermiform appendix inside a right hernial sac, rather inguinal or crural, is not exceptional repeatedly described in the literature, and always as a random "surprise" event. In fact, any painful symptomatology in the case of concomitant inflammation of the appendix dislocated in the sac is mostly attributed preoperatively to a complication of the same hernia, justifying the urgency of the intervention.
In a personal experience of about 48 years ago - unpublished - there is the case of a right-hand crural hernia, manifested as right, fixed, hard parenchymatous and painless inguino-crural swelling in an elderly woman. The diagnosis of a crural hernia was clarified only at the exploratory intervention because the ultrasound examination was not yet an available procedure, and the differential diagnosis with a neoplastic lymphadenopathy was not possible otherwise. The surprise was to find inside the sac a completely mummified appendix with the blind colon just resting and fixed to the internal hernial ring. Naturally, the appendectomy was carried out according to the technical rules, before providing the plastic by means of suture of the hernial gate.
The case described by the authors refers to a 77-year-old man, and regardless of the fact that each operator has subjective elements of judgment for his not easily debatable decisions, it is problematic to agree with the decision not to perform the appendectomy. While in the experience[4] mentioned in my references it is understandable the decision not to do the appendectomy due to the absence of appendicular inflammation in two extremely young babies, one of whom newborn, in the case of an adult it is not easy to agree with this abstention, in consideration that in the elderly the symptomatology of a possible appendicitis can escape the usual semeiological criteria. Therefore specially in elderly patients, the shared prophylactic practice of however removing any not inflamed appendix during laparotomy done for other indications, would be more motivated in the elderly.

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