

## Claudius Amyand's Hernia Strangled Two Case Reports at Donka National Hospital

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### ABSTRACT

**Introduction:** Amyand's hernia is a rare disease defined by the inclusion of the vermiform appendix in the hernia sac. The aim of our study was to discuss two (2) cases of Amyan strangulated hernia treated at the Donka National Hospital.

**Observation 1:** 65-year-old patient, admitted for painful right inguinoscrotal swelling and vomiting, evolving for 72 hours. History of right inguinal herniorrhaphy two years ago. The examination noted a deterioration in general condition with fever at 38.5°C; a tachycardia at 100/min. Biology showed hyper leukocytosis at 15 Giga/l. Ultrasound was in favor of hernia strangulation with necrosis. During surgery, a gangrenous and perforated appendix was found in the hernia sac. We performed an appendectomy and herniorrhaphy using the Bassini technique. The postoperative course was simple; the patient reviewed five (5) months did not present any recurrence.

**Observation 2:** 55-year-old patient, admitted for painful right inguinoscrotal swelling and vomiting, evolving for 5 days. Alcoholic-smoking. The physical examination noted an afebrile patient (36.5°C), normo cardia (88 pulses/min) and normo tense (TA=130/80 mmhg), painful and irreducible. Biology was within normal limits. During the operation we found a phlegmonous appendix in the sac and performed an appendectomy and herniorrhaphy using the Bassini technique. The postoperative course was simple. The patient reviewed five (5) months did not present any recurrence.

**Conclusion:** Amyand's hernia is a rare entity often diagnosed intraoperatively. The treatment is better codified taking into account the problems of contamination linked to appendectomy and hernia repair.

### Keywords

Strangulated Amyand hernia, Donka Hospital.

### Introduction

Amyand's hernia is a rare condition defined by the inclusion of the vermiform appendix in the hernia sac. It represents less than 1% of all cases of inguinal hernia and 0.2% of cases of appendicitis. It

was first described by the English surgeon Claudius Amyand, who performed a successful appendectomy in 1735 in an 11-year-old patient with a perforated appendix in the hernia sac [1,2]. Diagnosis is often made during experimental surgery, as it is difficult to detect this type of hernia without surgery. However, clinical examination and radiographic examinations, such as ultrasound, can play a role in detecting such hernias [1].

The aim of our study was to discuss two (2) cases of strangulated Amyand hernia treated at the Donka CHU national hospital in Conakry.

### Observation 1

65-year-old patient admitted to the department for a painful right inguinoscrotal swelling and vomiting evolving for 72 hours. The swelling was usually painless and reducible and a year ago. ATCD of right inguinal herniorrhaphy two years ago. The examination noted a deterioration in general condition with a fever of 38.5°C; a tachycardia at 100/min. There was a 15 x 10 cm right oval inguinoscrotal swelling on the postoperative scar, tense, shiny, painful, irreducible and hot; both testicles were palpable in the scrotum. The abdomen was slightly distended and tympanic. The patient is seen with an ultrasound which showed hernial strangulation with necrosis. The biological assessment showed hyperleukocytosis at 15 Giga/l. the patient was admitted to the theater after conditioning, we found a perforated appendix in the bag and proceeded to an appendectomy and herniorrhaphy according to the Bassini technique (right inguinoscrotal incision of 5 cm widened in the right iliac fossa of 3cm).

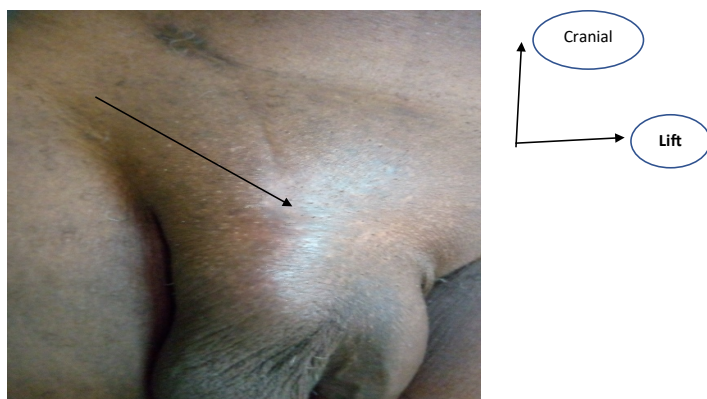


Figure 1: TISD ovulaire (de 15 x 10 cm sur cicatrice post opératoire).

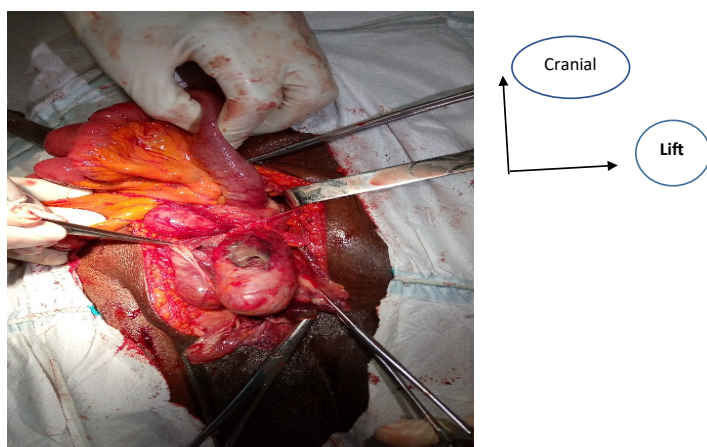


Figure 2: Perforated appendix in the hernia sa.

### Observation 2

55-year-old patient, merchant, admitted for painful right inguinoscrotal swelling and vomiting of food (3 times), evolving

for 5 days. Alcoholic-smoking due to 20 year packs. The physical examination noted a patient afebrile (36.5°C), normo cardia (88 pulses/min) and normo tense (BP=130/80 mmhg), presenting a good physical appearance, an oval right scrotal inguinal swelling of 4 cm long axis, tense, painful and irreducible. The abdomen was soft and painless. The biological assessment was within normal limits (Hb=13 g/dl; leukocytes= 10 Giga/l, AHbs= negative, Retroviral serology=negative, TP=70%, APT=25 seconds, urea=, creatinine=). The patient was admitted to the operating room after conditioning, we found a phlegmonous appendix in the sac and proceeded to appendectomy and herniorrhaphy according to the Bassini technique. The postoperative course was simple.



Figure 3: TISD tense, painful (10 cm long axis x 5).

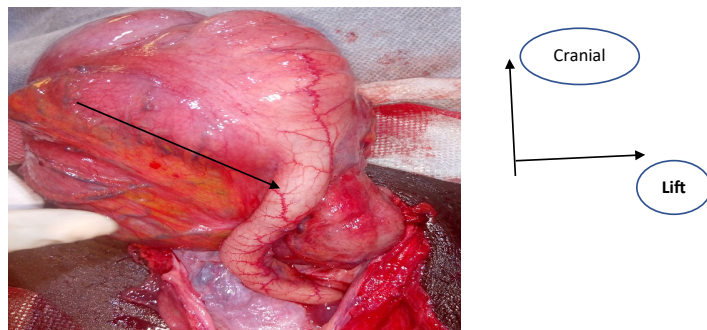


Figure 4: Phlegmonous appendix in the hernia sac.

### Discussion

Amyand's hernia is rare and thought to occur in < 1% of inguinal hernias and on the right side given the normal anatomical position of the appendix, most Amyand's hernias occur in a right inguinal hernia [3]. The pathophysiology of Amyand's hernia is unknown. Weber et al. proposed that due to the hernia, the appendix may become more vulnerable to microtrauma, causing adhesion to the hernial sac due to fibrosis. This hypothesis that inflammatory swelling can lead to 5 by Abu Dalu, Barut, and House. Muscle contractions and changes in abdominal pressure can cause the appendix to compress, leading to decreased blood supply and secondary inflammation. [4]. It may be asymptomatic if the hernia is not strangulated and the appendix is normal. In other cases, the patient may present with severe abdominal pain in addition to fever, fatigue, vomiting, or even generalized abdominal infection in the event of appendicular perforation [5]. Our two cases presented a

painful right inguino-scrotal swelling associated with vomiting. The diagnosis of Amyand's hernia is difficult. It is intraoperative in the majority of cases with discovery in the hernial sac of the vermicular appendix which may be inflamed or even perforated. Although a preoperative computed tomography (CT) scan of the abdomen can be helpful in diagnosing the disease, it is not routinely used in such cases [6]. Differential diagnoses of Amyand's hernia include strangulated inguinal hernia, inguinal lymphadenitis, testicular torsion, acute epididymitis, acute hydrocele, and focal panniculitis [7]. The diagnosis in our two cases was a surgical surprise, the biological and morphological assessment accessible in emergency suspected hernial strangulation with necrosis in the first case and a strangulated right inguino scrotal hernia in the second. The current practice approach includes appendectomy and hernia repair with prolene mesh in cases where the appendix is intact or inflamed without perforation. However, in the presence of perforation, the proposal includes appendectomy and herniorrhaphy without the use of prolene mesh in order to avoid subsequent infection, recurrent hernia and enterocutaneous fistula [8]. Depending on the condition of the appendix the hernia is classified into 4 types, including the following: Type I hernia has a normal appendix in an inguinal hernia. Types II through IV have acute appendicitis in an inguinal hernial sac. Type II has an inflamed non-perforated appendix. Type III has a perforated appendix and type IV is complicated by intra-abdominal pathology [5]. Our two cases were Amyand hernias of type three (3) and two (2) and all benefited from an appendectomy with herniorrhaphy according to the Bassini technique.

### Conclusion

Amyand's hernia (AH) is a rare entity often diagnosed intraoperatively. The treatment is better codified taking into

account the problems of contamination linked to appendectomy and hernia repair. Appendectomy and herniorrhaphy work well in patients without sepsis or peritonitis.

### References

1. Hidar Alibrahim, Mouhammad Albattour, Sarya Swed, et al. A Strangulated Amyand's hernia: The first case report in Syria. *Ann Med Surg.* 2021; 72: 103064.
2. Fatih Ciftci, Ibrahim Abdulrahman. Incarcerated amyand hernia. *World J Gastrointest Surg.* 2015; 27: 47-51.
3. Ryan Nowrouzi, Rohit Gupta, SreyRam Kuy. Left-Sided Amyand Hernia: Case Report and Review of the Literature. *Fed Pract.* 2021; 38: 286-290.
4. Syed M Ali, Kamran A Malik, Hani Al-Qadhi. Amyand's Hernia: Study of four cases and literature review. *Sultan Qaboos Univ Med J.* 2012; 12: 232-236.
5. Doğan F, Tutak F. Illustrations of Hernia Surgery in the Early Period of the Ottoman Empire by Şerefeddin Sabuncuoğlu. *World J Surg.* 2021; 45: 2116-2120.
6. Torres Hernández D, Roselló Fina JR, del Campo Abad R, et al. Hernia de Amyand: presentación de un caso y revisión de la literatura. *Cambre Cir Gen Dig.* 2003; 22.
7. Almeida IM, Batista HMT, Peixoto ALR, et al. Hernie d'Amyand associée à une hernie de Richter évoluant avec une appendicite aiguë. *Archives internationales de médecine.* 2015; 8: 1-5.
8. Fatih Ciftci, Ibrahim Abdulrahman. Incarcerated amyand hernia. *World J Gastrointest Surg.* 2015; 7: 47-51.