

**ACUTE CECAL VOLVULUS WITH AMYAND'S HERNIA: ANUSUAL COMBINAISON
IN ABDOMINAL EMERGENCY**

Christel Marie Lalèyè¹, Gloire à Dieu Byabene², Emmanuel Dibert-Bekoy-Nouganga³, Setondji Gilles Roger¹,
Valimungighe Moïse Muhindo^{1,4}, Yacoubou Imorou¹, Gaspard Gbessi¹ and Kuassi Delphin Mehinto¹

¹University Clinic of Visceral Surgery; "Hubert_Koutoukou_Maga" University_Teaching Hospital Center, Cotonou, Bénin.

²Departement of Surgery; "Panzi Hospital" University Teaching Hospital Center, D.R. Congo.

³Department of Surgery; "Maman Elisabeth Domitien De Bimbo Hospital" University Hospital Center. Central African Republic.

⁴Catholic University of Graben, D.R.Congo.

*Corresponding Author: Dr. Christel Marie Lalèyè

University Clinic of Visceral Surgery; "Hubert_Koutoukou_Maga" University_Teaching Hospital Center, Cotonou, Bénin.

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ABSTRACT

Taken in isolation, Amyand's hernia as well as cecal volvulus are pathological entities of rare occurrence. Their association in the same individual seems to have never been described. We report a clinical image of Amyand's hernia associated with colonic volvulus to a 35 years old patient.

KEYWORD: amyand's hernia, cecal volvulus, emergency, appendicectomy, cecal fixation.

CLINICAL IMAGE

A patient 35 year old male patient presents to the Emergency Department with 2 days of worsening abdominal pain, distension, nausea, vomiting and cessation of flatus. The medical history reveals an inguino-scrotal tumefaction evaluating since 4 years with episode of strangulation with local pain and spontaneous resolution. On the physical examination, his abdomen was distended and tender with no rebound or guarding. There was a presence of borborygmus on auscultation of the abdomen. There was inguino scrotal tumefaction painful, non-reducible, non-impulsive to coughing. The rectal ampulla was empty on the digital rectal examination. The radiography of the abdomen has allowed to note colic and small intestine water levels.

The diagnosis of a strangulated inguino-scrotal hernia has been made and its cure by local approach has been indicated. The exploration found an indirect hernia a non-inflammatory appendix in the hernia's bag. There was viable shrunken small bowel and an enlarged small bowel in the hernia sac after kelotomy. The abdominal reduction of the bowel was impossible. An exploratory laparotomy was performed because of abdominal distension. There were found a cecal volvulus with the strangulation of the small bowel and the colon. The reduction of the cecal's volvulus, its fixation and an appendicectomy was performed with the cure of the hernia by Bassini because of the local inflammation. The anatomopathology of the appendix was normal. Post-operative abdominal course was uneventful.

ANNEXE : IMAGES

Figure 1: Highlighting of the appendix after chelotomy and opening of the bag. Note the large dilation from the small intestine.



Figure 2: Cecum volvulus.

DISCUSSION

Protrusion of a vermiform appendix in an inguinal hernia sac is known as Amyand's hernia named after Claudius Amyand, the first surgeon who described and treated it, performing simultaneously the first

appendectomy are December 1735 at St George's Hospital in London.^[1]

Amyand's hernia is classically described to occur in less than 1% of all inguinal hernias.^[2-4]

Cecal volvulus is the rotation or torsion of a flexible cecum and ascending colon.^[5]

It is an uncommon entity, with a relatively low incidence, causing approximately 1% of all colonic obstructions, but is associated with significant morbidity and mortality.^[6]

Patients may have variable clinical presentations that leads to delay in diagnosis and treatment.^[5]

We did not find a study showing the association of the amyand's hernia and a cecal volvulus simultaneously at the same patient.

The clinical image of Amyand's hernia looks like that of an incarcerated hernia, and thus it is difficult to diagnose clinically.^[7-9]

It is commonly an indirect hernia as for our patient, although direct Amyand's hernia has been also described. The appendix can be accompanied by the cecum and/or right colon.^[9]

There are 3 types of this condition

Type I -cecal volvulus in clockwise axis around mesenteric axis, including the ascending colon and terminal ileum,

Type II - loop volvulus that occurs when there is counter clockwise axial rotation of the cecum around its mesentery, which include the ascending colon and terminal ileum, and

Type III - CV develops with the upward folding of the cecum instead of axial.^[10]

The absence of inflammatory changes in Type 1 approximates elective hernioplasty.^[11]

Type 2 Amyand hernias are those in which the septic changes are confined to the hernia.^[12]

Type 3 represents a scenario where the sepsis has spread beyond the hernia sac and requires more extensive surgery.^[13]

Type 4 of Amyand hernia includes all cases where a serious, complicating pathology exists outside of the hernia sac.^[14]

So that our patient had a Type 4 with a cecal volvulus type 1.

Per operatively we thought that the obstacle on the coecum did cause the coecal volvulus and when the

small bowel did enter in the hernia bag when it was strictured by the volvulus.

The appendectomy is done systematically to Amyand's hernia for some author and other do it only when it is inflammatory.

The cecopexy is systematic for cecal volvulus. Some authors perform the appendectomy looking for a cecal fixation by a fibrosis after internal cicatrization.

We decided to do an appendectomy for our patient even if it was normal macroscopically because it is relative in Amyand's hernia also in cecal volvulus.

CONCLUSION

Cecal volvulus associated with Amyand's hernia is an unusual condition diagnosis of which may be delayed. In our case it was type 4 of Amyand hernia associated with type 1 of cecal volvulus whom an appendectomy, cecal fixation and a cure of hernia as Bassini was performed.

REFERENCES

1. Amyand C. Of an inguinal rupture, with a pin in the appendix caeci incrustrated with stone; and some observations on wounds in the guts. *Phil Trans R Soc Lond*, 1736; 39: 329-42.
2. Ryan W. Hernia of the vermiform appendix. *Ann Surg*, 1937; 106: 135-9.
3. Thomas WE, Vowles KD, Williamson RC. Appendicitis in external herniae. *Ann R Coll Surg Engl*, 1982; 64: 121-2.
4. Sharma H, Gupta A, Shekhawat NS, et al. Amyand's hernia: a report of 18 consecutive patients over a 15-year period. *Hernia J Hernias Abdom Wall Surg*, 2007; 11: 31-5.
5. Consorti ET, Liu TH. Diagnosis and treatment of caecal volvulus. *Postgrad Med J.*, 2005; 81: 772-776.
6. Baldarelli M, De Sanctis A, Sarnari J, Nisi M, Rimini M, Guerrieri M. Laparoscopic cecopexy for cecal volvulus after laparoscopy. Case report and a review of the literature. *Minerva chir*, 2007; 62: 201-204.
7. Cankorkmaz L, Ozer H, Guney C, et al. Amyand's hernia in the children: a single center experience. *Surgery*, 2010; 147: 140-3.
8. Okur MH, Karacay S, Uygun I, et al. Amyand's hernias in childhood (a report on 21 patients): a single-centre experience. *Pediatr Surg Int*, 2013; 29: 571-4.
9. D'Alia C, Lo Schiavo MG, Tonante A, et al. Amyand's hernia: case report and review of the literature. *Hernia J Hernias Abdom Wall Surg*, 2003; 7: 89-91.
10. DeSilva SG. Cecal volvulus case report. *Imag Med.*, 2017; 9: 31-2.
11. Bendavid R. The uni W ed theory of hernia formation. *Hernia.*, 2004; 8: 171-176.

12. Livaditi E, Mavridis G, Christopoulos-Geroulanos G. Amyand's hernia in premature neonates: report of two cases. *Hernia*, 2007; 11: 547–549.
13. Sharma H, Gupta A, Shekhawat NS, Memon B, Memon MA. Amyand's hernia: a report of 18 consecutive patients over a 15-year period. *Hernia*, 2007; 11: 31–35.
14. Lee YT, Wu HS, Hung MC, Lin ST, Hwang YS, Huang MH. Ruptured appendiceal cystadenoma presenting as right inguinal hernia in a patient with left colon cancer: a case report and review of literature. *BMC Gastroenterol*, 2006; 6: 32.