

Case Report

A rare cause of intestinal obstruction: A case of ileo-sigmoid node in Togo

Tamassi Bertrand Essobiyou^{1,*}; Fousseni Alassani²; Kodjo Abossisso Sakiye³; Alexandre Palissam Keheou³; Mohamed Issa³; Ekoue David Dosseh³

¹General Surgery Department, Dapaong Regional Hospital Center, Dapaong, Togo.

²Visceral Surgery Department, Sylvanus Olympio University Hospital Center, Lome, Togo.

³General Surgery Department, Sylvanus Olympio University Hospital Center, Lome, Togo.

***Corresponding Author: Essobiyou Tamassi Bertrand**

General Surgery Department, Dapaong Regional Hospital Center, Dapaong, Togo.

Tel: 0022890898547; Email: tamassi2343@outlook.com

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Abstract

Introduction: The Ileo-Sigmoid Node (ISN) is a rare condition resulting in a mixed bowel obstruction. It is difficult to diagnose and its treatment is surgical. We are reporting a case of ISN in a regional hospital in Togo.

Case report: A 25 years old patient with no known pathological history was admitted with abdominal pain, vomiting and a stoppage of fecal matter and gas. The radio-clinical work-up concluded that the small bowel was occluded by strangulation and the indication for laparotomy was given. Intraoperatively, a type II of ISN with ileal and sigmoid necrosis was discovered. The patient underwent ileal and sigmoidal resection, colorectal anastomosis and ileostomy. The postoperative course was simple.

Conclusion: ISN is a serious condition with high mortality. It requires prompt and adequate treatment.

Keywords: Node; Volvulus; Sigmoid; Ileum; Occlusion; Togo.

Introduction

The ileo-sigmoid knot is a rare pathology [1-5]. It creates a double volvulus involving the ileum and sigmoid colon and is a severe form of strangulated bowel obstruction [3,4]. This is real surgical emergency. Indeed, the condition is marked by a rapid evolution towards intestinal necrosis [3,4]. The diagnosis

is made intraoperatively. Preoperative diagnosis is difficult due to an atypical radio-clinical picture [1,3-5]. If the surgical treatment is acquired, the operative technique is not the subject of a consensus [1,2]. Only prompt and adequate treatment should be targeted [3]. We are reporting a case of ileo-sigmoid knot discovered intraoperatively on a 25 years old patient in a regional hospital in Togo.

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Case report

He was a 25 years old patient, shopkeeper, admitted to the surgical emergency room for sudden abdominal pain, vomiting and a complete stoppage of fecal matter and gas for 3 days. He had no known medical or surgical history. The clinical examination revealed an occlusive syndrome with a stable hemodynamic state, which led to the realization of an X-ray of the abdomen, which revealed multiple hydroaerosic levels that were wider than high and central. The radio-clinical arguments allowed us to retain a picture of intestinal occlusion by small bowel strangulation and a surgical indication was retained. After preoperative reanimation, a median laparotomy in the operating room revealed a double volvulus of the small intestine (Figure 1) and the sigmoid complicated by ileal and sigmoid necrosis (Figure 2); the sigmoid was found in the right iliac fossa. The detorsion

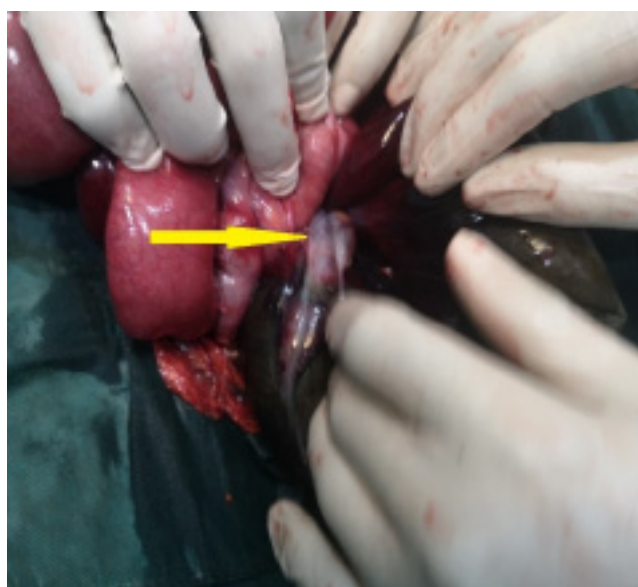


Figure 1: Surgical view of the ileo-sigmoid node before detorsion.



Figure 2: Surgical view after detorsion with flattened and tapered meso sigmoid (dissection forceps), ileal (yellow arrow) and sigmoid necrosis (white arrow).

allowed to identify the sigmoid as the active segment wrapping around the ileum and thus creating a type II ileo-sigmoid node. The ileal necrosis extending over a portion of approximately 70 cm with the distal foot approximately 15 cm from the ileocaecal junction. The sigmoid necrosis concerned the entire loop. The patient underwent ileal and sigmoidal resection, terminal colorectal anastomosis, and terminal ileostomy. The postoperative course was simple.

Discussion

ISN is a rare condition firstly described in 1845 by Parker [3,6]. In France, it accounts for approximately 7.6% of volvulus [1,3]. It is a particular form of intestinal obstruction that is a real surgical emergency [1,6]. This is a double volvulus involving the ileum and the sigmoid, resulting in intestinal obstruction by strangulation with a high risk of progression to necrosis [3,4]. This condition is most common in males in the 3rd and 4th decades of life [1,4]. Several factors associated with its occurrence have been reported by the authors. Among them, anatomical factors such as hypermobility of the small intestine (long meso and short root) and a dolichosigmoid [1,4]. In addition to these situations, men have a high mesocolon position and a narrow pelvis [4]. On the other hand, there are nutritional factors (single daily meal) that cause rapid repletion of the jejunum, which twists it around the empty ileum and carries away the sigmoid [5].

Pathologically, ileo-sigmoid nodes are classified by Alver et al. into 4 types according to which intestinal segment carries the other (active segment) [2,5]. Type I corresponds to an active ileum. It has 2 subtypes IA and IB depending on whether the rotation is clockwise or counterclockwise around the sigmoid. Type II has an active sigmoid and type III an active ileo-caecal junction. In type IV, it is difficult to determine which of the segments is the active one Type I is the most frequent (57.5%) while type III is exceptional [5]. In our case, we encountered a type II.

Due to the radio-clinical atypicality, the diagnosis of ileo-sigmoid nodes is rare preoperatively [1,3-5]. However, it is possible in 20% of cases [1-3]. Clinically, it is a picture of mixed intestinal occlusion (upper and lower) by strangulation mechanism [4]. We find abrupt onset of abdominal pain, vomiting, an early stoppage of fecal matter and gas and gas, and a voluminous meteorism. However, a state of hemodynamic shock can complicate the picture [1]. Radiologically, it is most often a combination of hydroaeric levels wider than high and central (hail) and hydroaeric levels higher than wide (colonic) [1,3,5]. Therefore, CT scans are more sensitive and may show a characteristic image of NIS [3-6]. It is a medial deviation of the descending colon and meso-caecum with a sharp, tapered appearance of their internal edges, converging into turns of the spiral [3,5].

The management of ISN is surgical [1,3-6]. Even in the case of a preoperative diagnosis, endoscopic detorsion is contraindicated in the case of INS [5]. Preoperative Reanimation is necessary to correct or prevent possible hydro-electrolyte disorders [5,6]. There is no real consensus on the surgical technique, particularly in the absence of intestinal necrosis [1,6]. For some, detorsion is sufficient and for others, resection is essential to prevent recurrence [1,6]. However, many authors agree on resection in case of necrosis. The possibilities of anastomosis are conditioned by the local conditions [3,5,6]. In our case we

performed a colorectal end-to-end anastomosis coupled with a terminal ileostomy. In rare cases and in the absence of necrosis, detorsion with sigmoidopexy is possible [3,6].

The terrain and the time taken to treat it determine the prognosis [5]. ISN is still associated with a high mortality rate with approximately 73% of deaths, making ISN a serious condition [3].

Conclusion

A rare and serious condition, the ileo-sigmoid node is a particular form of intestinal obstruction. Its radio-clinical atypicality makes its preoperative diagnosis difficult. Treatment in developing countries suffers from both diagnostic and therapeutic delays. Because of its high mortality, its treatment, which is surgical, must be early and adapted.

Declarations

Conflicts of interest: The auteurs have no financial, consultative, institutional, and other relationships that might lead to bias or conflict of interest.

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Ethical approval: The study protocol fulfilled the requirements by the Hospital Ethics Committees and was approved.

Consent: Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Authors' contribution: The study design and data acquisition were done by ETB. AF, DED and KAP carried out the literature review. The manuscript was written by ETB, SAK and IM. All the authors participated in the revision of the manuscript.

Guarantor: Essobiyou Tamassi Bertrand

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