Research Article

INTERNATIONAL JOURNAL OF CURRENT MEDICAL AND PHARMACEUTICAL RESEARCH

ISSN: 2395-6429, Impact Factor: 4.656
Available Online at www.journalcmpr.com
Volume 6; Issue 05(A); May 2020; Page No. 5161-5163
DOI: http://dx.doi.org/10.24327/23956429.ijcmpr202005882

ILEO-SIGMOIDIAN KNOT ON A DOLICHOSIGMOID

El Boukhfaoui Mohamed

Departement of General Surgery, Mohamed VI university Hospital, Marrakech Morocco

ARTICLE INFO

Article History:
Received 10th February, 2020
Received in revised form 2nd March, 2020
Accepted 26th April, 2020
Published online 28th May, 2020

Key words:
ileo-sigmoid knot, intestinal obstruction

ABSTRACT

The ileo-sigmoid knot is a double volvulus interesting the sigmoid and the small one, it evolves quickly towards the intestinal necrosis.
Presentation of Case: We report an emergency admitted case for intestinal obstruction in our institute; and in which the diagnosis of ileo-sigmoid knot was only made peroperatively.
Discussion and Conclusion: Through this case and a review of the literature we will define the diagnostic, therapeutic and prognostic aspects of this rare clinical entity.

INTRODUCTION

The ileosigmoid knot or double ileosigmoid volvulus is a winding of the small intestine around the base of the sigmoid colon, thereby achieving intestinal obstruction by bifocal strangulation of the sigmoid and ileum [1]. This clinical entity is exceptional in western countries, but it is common in certain African and Middle East Asian nations. [2] The ileo-sigmoid knot is considered a real surgical emergency that progresses rapidly to intestinal necrosis, the knowledge of its mechanism and the search for characteristic CT signs allows early diagnosis and thus appropriate management. [3]

Observation

We report the observation of a young man of 26 years with no particular history, admitted to the emergency room, for an occlusive syndrome made of vomiting and stop of materials and gases, evolving for 5 days associated with abdominal pain rapidly increasing in intensity.The physical examination found a distended, meteorized, sernsible abdomen on the whole, There was no septic state and the vital functions were preserved. free hernial openings and rectal examination of the empty rectal bulb. Biological findings were normal apart from neutrophilic leukocytosis and a negative CRP. The abdomen X-ray without preparation shows an aeric distension of the sigmoid loop without hydro-aeric level (fig.1). An abdominopelvic CT scan was performed, it showed a double volvulus: there is an aspect of distended and volvulated dolichosigmoid (fig2) with a transitional zone at the feet of the sigmoid loop, a rotation of the mesenteric vessels attracted towards the line median (fig 3), and finally an intra abdominal effusion, witness to digestive distress.

The patient was operated on urgently, surgical exploration of which found a large quantity of intestinal suffering liquid which was evacuated; with a volvulus of the small intestine around a dolicho-sigmoid in the form of a knot, the ileum was necrotic over 1m to 20cm from the ileocecal junction (fig 4, 5). The patient underwent resection of the necrotic small intestine and the sigmoid loop with right ileostomy due to septic conditions and colo-colic end-to-end anastomosis. The postoperative resuscitation suites were simple. declared outgoing on the 6th day of postoperative, then readmitted one month later for restoration of hail continuity.

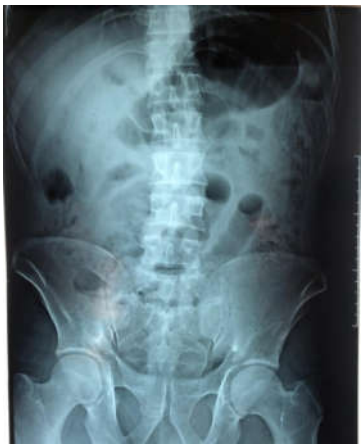


Figure 1 aeric distension of the sigmoid loop without hydro-aeric level

Corresponding author:* **El Boukhfaoui Mohamed
Departement of General Surgery, Mohamed VI university Hospital, Marrakech Morocco

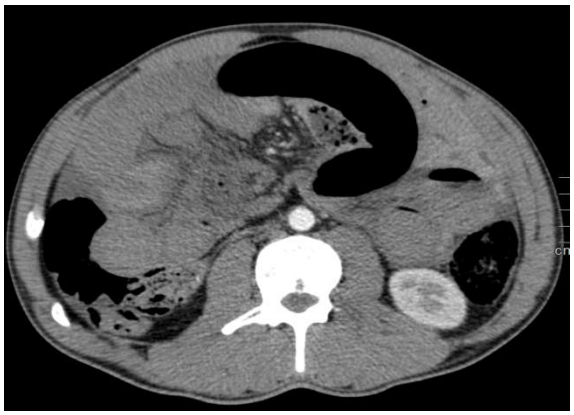
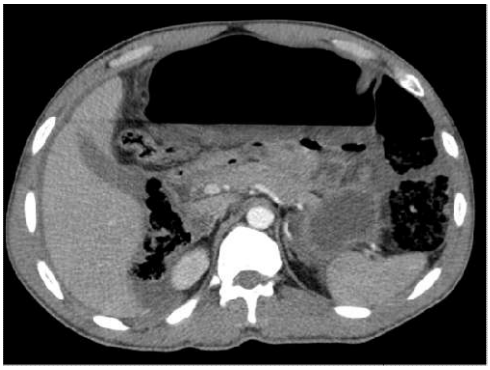


Figure 3 Winding of the vessels around the mesenteric axis carrying out the whirlwind sign



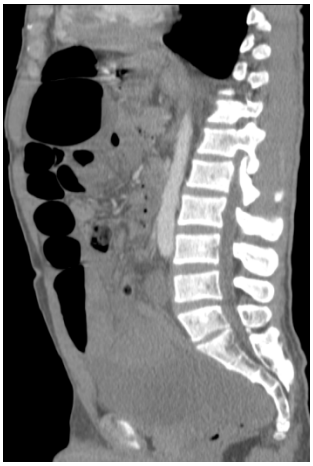


Figure 2 Aspect of sigmoid dolicho

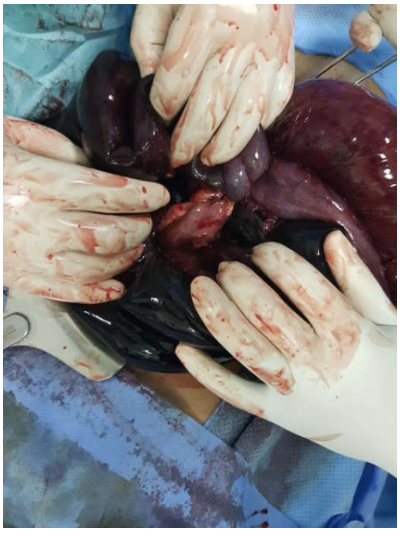


Figure 4 Ileo-sigmoid knot with hail necrosis

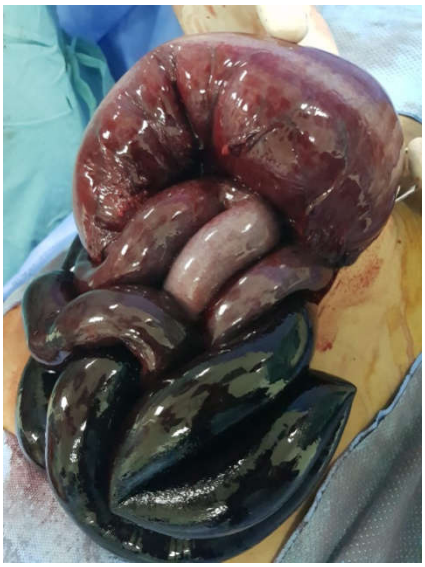


Figure 5 Ileosigmoid knot with extensive necrosis of the small intestine with a distended but good viability of the sigmoid dolicho

DISCUSSION

The ileosigmoid knot or double ileosigmoid volvulus, is a rare surgical emergency, It was first described by Parker in 1845 [2], it mainly affects humans in the fourth decade [4] [5] Several factors have been implicated to explain this pathology. anatomical predispositions : a small intestine hypermobile by a meso too long and a short root can curl at the foot of the sigmoid colon [5,6]. [6,7].

A second factor is dietary, the rapid repletion of the jejunum in patients who eat a single meal per day would promote its twisting around the empty ileum, thus carrying away the sigmoid loop [4,5] [5,6]. Alver *et al* [5]. [6] classified the ileosigmoid knot into 4 types: the most common type I occurs when the ileum (active component) revolves around the sigmoid; type Ia when the torsion is clockwise, type Ib counterclockwise. Type II the sigmoid colon (active component) pivots around the ileum. Type III when the ileo-cecum revolves around the sigmoid. And indeterminate when it is difficult to specify the active and passive component [5,6]. [6,7].

The early diagnosis of this double volvulus is necessary in order to treat it without delay and thus avoid digestive necrosis. Despite a clinical picture suggestive of digestive distress, radiological diagnosis is difficult in the face of atypical CT signs.

Unfortunately, the diagnosis is often made late preoperatively. The clinical occlusive syndrome is marked by acute abdominal pain initially localized, then permanent and generalized, a picture of hypovolemia is suggestive in 56% of cases. X-ray of the abdomen without preparation can occasionally show the characteristics of a double closed-loop occlusion with hydro-aeric levels [7] [8] sigmoid in the upper right quadrant, and others of the hail-like type which can be lateralized to the left, * but most often it shows only a sigmoid volvulus or an isolated hail-like occlusion.

The pathophysiological mechanisms explain the extreme severity of the clinical pictures and the poor prognosis of this type of involvement. The abdominopelvic CT scan with injection of contrast product can contribute to the diagnosis by showing the sign of vortex with a median deviation of the

cecum, the descending colon and the upper and lower mesenteric vessels which will converge towards this vortex as well as signs of digestive distress. ischemic; the set having the indication for emergency surgery. Given these radiological colon occlusion data associated with the clinical triad of occlusion, the diagnosis of ileosigmoid knot is plausible in 71% of cases. It is essential to differentiate it from the volvulus of the sigmoid because endoscopic reduction is contraindicated.

The evolutionary aspects of the ileosigmoid knot are associated with high mortality in the absence of treatment, requiring early diagnosis, appropriate and rapid surgical management, treatment is based on resection-anastomosis or stoma if the intestinal segments are necrosis, detorsion and sigmoidopexy is recommended in the rare cases where there is no sigmoid necrosis [8]. [9].

CONCLUSION

The ileosigmoid knot is a rare cause of primary bowel obstruction by bifocal strangulation. It is a surgical emergency whose delay in treatment explains the severe prognosis. The discovery of a double volvulus appearance on the CT scan prompts urgent surgical intervention.

Only an early diagnosis with optimal management can improve the prognosis, reducing the morbidity and mortality due.

References

1. Arthur. V, Pascal. A, Hubert. R and al. Le nœud ileosigmoidien: une cause improbable d'occlusion intestinale primitive par strangulation bifocal. Gastroenterol Clin Biol 2007; 31: 975-977.
2. Hirano Y, Hara T, Horichi Y, Nozawa H, *et al*. Ileosigmoid knot: case report and CT findings. Abdom Imaging. 2005 Nov-Dec;30 (6):674-6. This article on PubMed
3. Thambi Dorai CR. Ileosigmoid knot - a case report. Sing med j. 1988; 29:413-415
4. Johnson CD. An unusual volvulus - the ileosigmoid knot. Postgraduate Medical Journal. 1986; 62:47-49. This article on PubMed
5. Alver O, Ören D, Tireli M *et al*. Ileosigmoid knotting in Turkey Review of 68 cases. Dis Colon Rectum. 1993 Dec;36(12):1139-47. This article on PubMed
6. Atamanalp SS, Oren D, *et al*. Ileosigmoidal Knotting: Outcome in 63 Patients. Dis Colon Rectum. 2004 Jun;47(6):906-10. This article on PubMed
7. Burrah R, Menon A, Pathan H *et al*. The ileosigmoid knot. Indian J Surg. 2010; 72:140-142
8. Baheti AD, Patel D, Hira P, Babu D. Ileosigmoid knot: A case report. *Indian Journal of Radiology and Imaging*. 2011; 21:147-149. This article on PubMed

How to cite this article:

El Boukhfaoui Mohamed (2020) 'Ileo-Sigmoidian Knot on A Dolichosigmoid', *International Journal of Current Medical and Pharmaceutical Research,* 06(05), pp 5161-5163.

****