Scientific Research Publishing

Case Reports in Clinical Medicine, 2024, 13, 37-42
https://www.scirp.org/journal/crcm
ISSN Online: 2325-7083
ISSN Print: 2325-7075

Stranched Internal Hernia Revealed by Occlusion of the Large Libra: A Propos of a Case

Abdoulaye Kanté[1*], Mamady Almami Kéita[2], Idrissa Tounkara[1], Drissa Ouattara[1], Bréhima Bengaly[1], Souleymane Sanogo[1], Bréhima Togola[1], Drissa Traoré[1], Nouhoum Ongoiba[1]

[1]General Surgery Department of The Kati-Mali Reference Health Center, Koulikoro, Mali
[2]Service of Surgery "B" of The CHU Du Point G, Faculty of Medicine and Odontostomatology, Bamako, Mali
Email: *kanteim@yahoo.fr

How to cite this paper: Kanté, A., Kéita, M.A., Tounkara, I., Ouattara, D., Bengaly, B., Sanogo, S., Togola, B., Traoré, D. and Ongoiba, N. (2024) Stranched Internal Hernia Revealed by Occlusion of the Large Libra: A Propos of a Case. *Case Reports in Clinical Medicine*, **13**, 37-42.
https://doi.org/10.4236/crcm.2024.131004

Received: February 7, 2023
Accepted: October 31, 2023
Published: January 22, 2024

Abstract

The left para-duodenal internal hernia, whose origin is generally embryological, is a rare etiology of intestinal obstruction found mainly in young adults. We report here the case of acute intestinal obstruction by left para-duodenal internal hernia in a 36-year-old young man. It was a patient who consulted urgently for occlusive syndrome with cessation of materials and gases. Abdominal percussion noted abdominal tympanism and pre-hepatic dullness was preserved. The flow and icicle signs were negative. Palpation did not objectify hepatosplenomegaly and did not find any organomegaly either. On the other hand, she found an epigastric defense. The abdominal X-ray without preparation showed water levels that were wider than high, hail-like. We performed a median above and below umbilical laparotomy and intraoperatively, it was an internal hernia with incarceration of small loops in a voluminous left paraduodenal sac of 12 cm. They were not necrotic and quickly recolored after extrication. We resected the hernial sac and closed the hernial orifice with separate stitches with absorbable suture 0. The postoperative course was simple. The patient was discharged from the hospital on the 4th postoperative day. After 18 months of hindsight, he is doing well.

Keywords

Paraduodenal Internal Hernia, Occlusion, Laparotomy

1. Introduction

An internal hernia is the displacement of one or more abdominal viscera through an intra-abdominal orifice [1]. Internal hernias represent less than 5% of the causes of intestinal obstruction [2] and have a dual mode of revelation: acute or

progressive [3]. Para-duodenal hernias, which are generally rare congenital malformations, are the most frequent of these internal hernias and represent 50% to 60%.

We report here a case of left para-duodenal internal hernia discovered in a context of acute intestinal obstruction.

2. Observation

Mr. A.C., aged 36, was admitted urgently to the Reference Health Center (CS Ref) in Kati for occlusive syndrome.

He had no surgical history and his medical history was intermittent abdominal pain.

The anamnesis revealed epigastric abdominal pain evolving for three days, in the type of torsion, of sudden onset and of moderate intensity, associated with early postprandial vomiting and cessation of intestinal transit.

The physical examination found an alteration in general condition, blood pressure at 90/60mmHg, pulse at 130 beats/min and temperature at 37˚C.

Abdominal percussion noted abdominal tympanism and pre-hepatic dullness was preserved. The signs of the flood and the icicle were absent.

Palpation did not objectify hepatosplenomegaly and did not find any organomegaly either. On the other hand, she found an epigastric defense.

Hernial orifices were free and painless. The rectal ampulla was empty and the rectal wall was soft. The rectovesical cul-de-sac was free and painless.

The abdominal X-ray without preparation showed water levels that were wider than high, hail-like (**Figure 1**).

Figure 1. X-ray of the abdomen without preparation showing fluid levels wider than high of hail type.

We would have asked for the abdominal scanner if it was feasible in our structure.

The biological assessment was normal, in particular there were no ionic disorders.

Based on the clinical and radiographic data, we operated on the patient urgently after brief medical resuscitation. We performed a median above and below umbilical laparotomy and intraoperatively, it was an internal hernia with incarceration of small loops in a voluminous left paraduodenal sac of 12 cm (Figure 2 and Figure 3). They were not necrotic and quickly recolored after extrication. We resected the hernial sac and closed the hernial orifice with separate stitches with absorbable suture 0. The postoperative course was simple. Indeed, the patient's intestinal transit resumed on D2 postoperative and he was discharged from the hospital on the 4th postoperative day. After 18 months of hindsight, he is doing well.

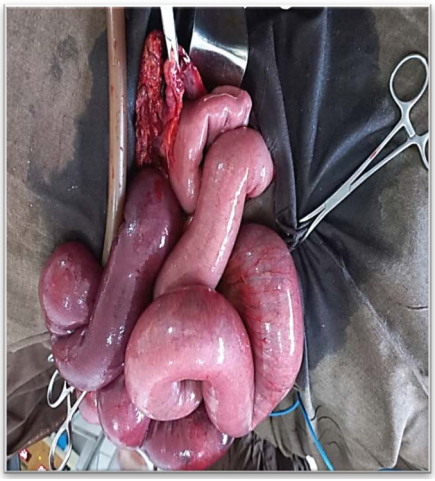

Figure 2. Intraoperative view of the hernia, incarceration of small loops.

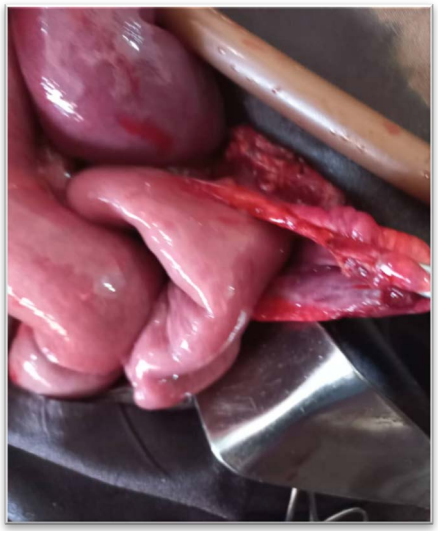

Figure 3. Intraoperative view of the hernia, voluminous left paraduodenal sac.

3. Discussion

Para-duodenal hernias represent 50% - 60% of internal hernias and are subdivided into two types: left para-duodenal hernias and right para-duodenal hernias [4].

Left para-duodenal hernias develop from Landzert's para-duodenal fossa, the neck is located between the duodeno-jejunal angle at the top and the inferior mesenteric artery at the bottom, while the free edge of the neck contains the inferior mesenteric vein and the left superior colic artery, the sac is therefore retro-mesocolic [4]. They represent 80% of para-duodenal hernias [5].

Right para-duodenal hernias (**Figure 4**), representing 20% of para-duodenal hernias [5], are located in Waldeyer's fossa. They are subdivided into pre and retrovascular types depending on their position in relation to the superior mesenteric vessels [4].

They are rarely diagnosed preoperatively and their diagnosis is most often made intraoperatively [6] [7] [8] [9]. Nevertheless, the diagnosis can be suspected in a young patient with a history of intermittent abdominal pain and no history of abdominal surgery. Our patient was young and had a history of intermittent abdominal pain. Also, he had not been operated on. These data should have made us think of the internal hernia.

Admittedly, the diagnosis could be suspected in the presence of fluid levels that are wider than high on the plain abdominal X-ray. On the other hand, the positive and etiological diagnosis of the occlusions of the young subject without a history of abdominopelvic surgery is based on the abdominal CT scan which shows images of circular groupings of loops in the left hypochondrium with the inferior mesenteric vein and the superior mesenteric artery. Left displaced upwards and forwards [10] [11] [12]. Our patient did not have an abdominal scan because it is not feasible in our exercise context. Indeed, our structure does not have a scanner and patients generally do not have the means to pay the ambulance costs to go for an abdominal scan in town. This is the reason why we only do the X-ray of the abdomen without preparation in front of an occlusive syndrome. In this case, our patient had an abdominal X-ray without preparation which showed fluid levels that were wider than high.

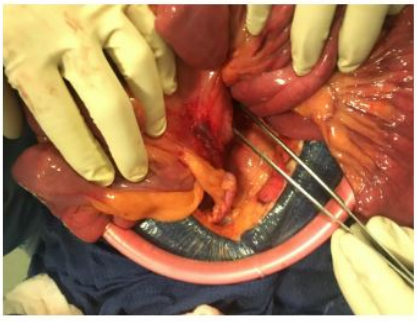

Figure 4. Intraoperative view in laparotomy: the colon is on the left of the image, the small intestine on the right, the clamp is inserted into the hernial orifice behind the ascending mesocolon [5].

Once the diagnosis has been made, laparotomy remains the main therapeutic recourse [13] [14]. Nevertheless, some authors recommend a primary laparoscopic approach [15] [16] [17].

We proceeded to a laparotomy by midline incision with extrication of the herniated loop. The sac was resected and sutured in our study, whereas others [18] [19] advocate simple closure of the hernial orifice. We did not resection the loops because the incarcerated portion was viable, but a single-stage resection-anastomosis was performed by other authors [18] [19].

The prognosis of para-duodenal hernias is good regardless of the approach (laparotomy or laparoscopy). In our structure, we do not perform laparoscopic surgery because we do not have a laparoscopic surgery column.

The postoperative course of our patient was simple and he left the hospital after 4 days of hospitalization. With an 18-month follow-up, his state of health is very satisfactory.

4. Conclusion

Internal hernias with para-duodenal hernia in mind (50% - 60%) are rare etiologies of intestinal obstruction (5%). They must be evoked in front of the tables of occlusive crises of the subject never operated. This is all the more so as the preoperative diagnosis promises to be difficult despite the development of computed tomography. Management is essentially surgical by laparotomy or laparoscopy. The good prognosis is the result of early diagnosis and adequate treatment.

Conflicts of Interest

The authors declare no conflict of interest.

References

[1] Miabaou Didace, M., *et al.* (2018) A Case of Internal Transomental Hernia. *Health Sciences and Disease*, **19**, 92-94.

[2] Denost, Q. (2016) Occlusive Syndrome and Internal Hernia. *The Letter from the Hepato-Gastroenterologist*, **19**, 10-11.

[3] Mathias, J., *et al.* (2011) EMC Internal Hernias. *Elsevier Masson SAS*, **33**, 1-8.

[4] Medarhi, J., *et al.* (1997) Left Paraduodenal Internal Hernia, Apropos of a New Case. *Maghreb Medicine*, **62**, 19-22.

[5] Peru, N., Jouvin, J. and Pocard, M. (2020) Acute Small Bowel Obstruction on Right Paraduodenal Internal Hernia Related to an Anomaly of Rotation of the Mesentery. *Journal of Visceral Surgery*, **157**, 218-219. https://doi.org/10.1016/j.jviscsurg.2019.08.008

[6] Bruot, O., *et al.* (2007) An Internal Hernia of the Ascending Caeco-Colon via Winslow's Hiatus Explored by Water Colon CT. *Journal de Radiologie*, **88**, 393-396. https://doi.org/10.1016/S0221-0363(07)89837-4

[7] Adamou, H., *et al.* (2015) Internal Supravesical Hernia, a Rare Cause of Acute Intestinal Obstruction. *Pan African Medical Journal*, **6735**, 1-4.

[8] Zida, M., Ouedrago, T., Sanon, B. and Traore, S.S. (2009) Epidemiological Aspects,

Diagnosis and Therapeutic Results of Strangulated Hernia at CHU YO Ouagadougou. *Revue Internationale des Sciences Médicales*, **11**, 47-51.

[9] Ba, P., Gueye, D., Wade, T.M. and Konate, I. (2017) Internal Henia of the Falciform Ligament Revealed by Acute Intestinal Obstruction: About a Case. *African Journal of Digestive Surgery*, **17**, 2261-2263.

[10] Bekhoukha, K., Hail, R., Khalfallah, R., Dahdouh, K. and Issolah, B.A. (2022) Occlusion intestinale sur hernie para duodénale gauche: À propos d'un cas. *Journal de Chirurgie Viscérale*, **159**, S110. https://doi.org/10.1016/j.jchirv.2022.07.128

[11] Hasmaoui, H., *et al.* (2019) Internal Hernia of the Falciform Ligament: A Rare Cause of Occlusion. *Pan African Medical Journal*, **17845**, 1-6.

[12] Daghfous, A., *et al.* (2011) Contribution of CT-Enteroclysis in the Preoperative Diagnosis of Internal Hernias: About 3 Cases. *Medical Tunisia*, **89**, 62-66.

[13] Armstrong, O., Hamel, A., Grignon, B., Peltier, J., Hamel, O., Letessier, E., Le Nel, J.C., Robert, R. and Rogez, J.M. (2007) Internal Hernias: Anatomical Basis and Clinical Revelation. *Surgical and Radiologic Anatomy*, **29**, 333-337. https://doi.org/10.1007/s00276-007-0212-6

[14] Kunin, N., Orat-Robilliard, N., Morin-Chouarbi, V. and Verbrackel, L. (2006) Internal Hernia by Strangulation of the Small Intestine on Peri-Hepatic Adhesions. *Journal de Chirurgie*, **143**, 67-68. https://doi.org/10.1016/S0021-7697(06)73615-8

[15] Delebecq, T., Bourneville, M., Guillemot, F. and Dugué, T. (2004) Diagnosis of a Trans-Mesocolic Internal Hernia by Computed Tomography. *Journal de Chirurgie*, **141**, 332. https://doi.org/10.1016/S0021-7697(04)95355-0

[16] Guinier, D. and Tissot, O. (2012) Hernie interne transomentale étranglée Strangulated lesser sac hernia. *Journal de Chirurgie Viscérale*, **149**, 241-243. https://doi.org/10.1016/j.jchirv.2012.01.012

[17] May, A., Cazeneuve, N. and Bourbao-Tournois, C. (2013) Acute Small Bowel Obstruction Due to Internsal Hernia in Winslow's Hiatus: CT Diagnosis, Laparoscopic Treatment. *Journal of Visceral Surgery*, **150**, 349-351. https://doi.org/10.1016/j.jviscsurg.2013.09.002

[18] Ouedrago, S., *et al.* (2017) Occlusion by Congenital Trans Mesenteric Internal Hernia: About Two Cases. *Pan African Medical Journal*, **131**, 1-5.

[19] Cyprien, Z., *et al.* (2020) Hernia of the Strangulated Sigmoid Fossa: Description of a Form. *JACCR Africa*, **4**, 115-118.