IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 23, Issue 6 Ser. 8 (June. 2024), PP 39-42
www.iosrjournals.org

Double Location of Small Bowel Adenocarcinoma Causing Intestinal Obstruction: Case Report

BOUIDIDA Houda [a,b], LAMGHARI M. [a,b], CHAIR W. [a,b], EL MOUHIB R. [a,b], KARAMI M. [a,b], DABBAGH M. [a,b], KADA A. [a,b], KOUASSI A., [a,b] BENSAL A. [a,b], BOUNAIM A. [a,b], MOUJAHID M. [a,b], KAOUI H. [a,b], NAJIH M. [a,b], BOUCHENTOUF S. M.[a,b] .

[a] *Department Of Visceral Surgery , Mohamed V Military Hospital, Rabat, Morocco*
[b] *Faculty Of Medicine And Pharmacy, Mohamed V University , Rabat, Morocco*

ABSTRACT:
Small bowel tumors are a rare cause of small bowel obstruction. Despite advances in diagnostic modalities, small bowel is notoriously difficult to explore and tumors are often advanced at the time of diagnosis and treatment. We describe the case of a 67-year-old patient admitted into our emergency department for intestinal obstruction due to the presence of two masses in the jejunum that have created an impassable stricture. Surgical resection involving the two masses in the ileum was performed, followed by an end-to-end anastomosis. Histopathological examination of the resected tissue confirmed the presence of a double location of small bowel adenocarcinoma. This report highlights the need for physicians to consider the diagnosis of small bowel malignancy when a patient presents with clinical symptoms suggestive of gastrointestinal malignancy, but conventional endoscopic or imaging investigations show negative results.

Keywords: *small bowel adenocarcinoma – double localisation– intestinal obstruction – emergency .*

Date of Submission: 10-06-2024 Date of Acceptance: 22-06-2024

I. INTRODUCTION:

According to the U.S. National Cancer Database, the incidence of small bowel tumors has increased rapidly, going from 11.8 cases per million in 1973 to 22.7 cases per million in 2004 [1].
Duodenal adenocarcinomas account for about 50% of small bowel adenocarcinomas, while jejunal and ileal primary tumors represent 30% and 20% of small bowel adenocarcinomas, respectively [2].

Most of the times, they are incidentally detected on histopathology [3].
We present a case of a 67 years old man who was recently diagnosed with small bowel obstruction and was initially operated on for a preliminary diagnosis of intestinal occlusion due to abdominal adhesions, since he had a history of previous surgery. It later turned out to be a small bowel adenocarcinoma in anatomopathological results.

II. CASE DESCRIPTION:

A 64-year-old male was admitted to the emergency department due to abdominal pain that had been progressively evolving for a week, associated with the gradual onset of abdominal bloating and bilious vomiting. He had a non-documented history of previous surgery for sigmoid volvulus two years earlier.

Clinical examination revealed a slightly distended, tender abdomen. On imaging, the diagnosis of flange occlusion was adopted, in the absence of any other radiological sign indicating the cause of the occlusion.

Given the patient's stable general condition, both clinically and biologically (normal blood pressure and heart rate, absence of ionogram disturbances, absence of dehydration), it was decided to treat him using conservative treatment, consisting in fasting diet, nasogastric tube decompression, and intravenous fluid supply. He was then administered gastrografin with clinical monitoring. Although the follow-up abdomen X-Rays showed that the contrast didn't reach the colon after 48 hours. A laparotomy was then indicated.

The intra-operative findings included a dilated jejunum and proximal part of the ileum, a narrowed distal ileum; and the presence of two invaginated intestinal masses about 40 cm apart.

The surgery consisted first on adhesiolysis, then resection of a part of the small intestine, including the 2 solid masses. Intestinal continuity was achieved by a primary end-to-end manual anastomosis.

Histology of the operative specimen showed a double location of a mucinous adenocarcinoma infiltrating the intestinal wall extending to the subserosa. Surgical margins were clean. Tumour with pathological staging: pT3.

The post-operative follow-up was without complications, with restoration of transit. Feeding was authorized on day 4 and the patient was discharged on day 6. His case was then discussed in a multidisciplinary team to complete treatment with adjuvant chemotherapy.

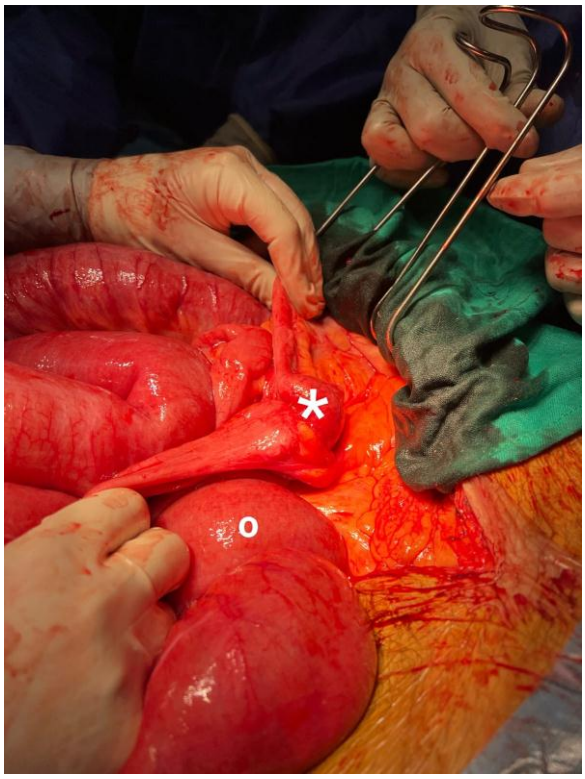

Fig 1: Operative findings of the obstacle that caused the occlusion (asterisk) with distended small bowel upstream (circle).

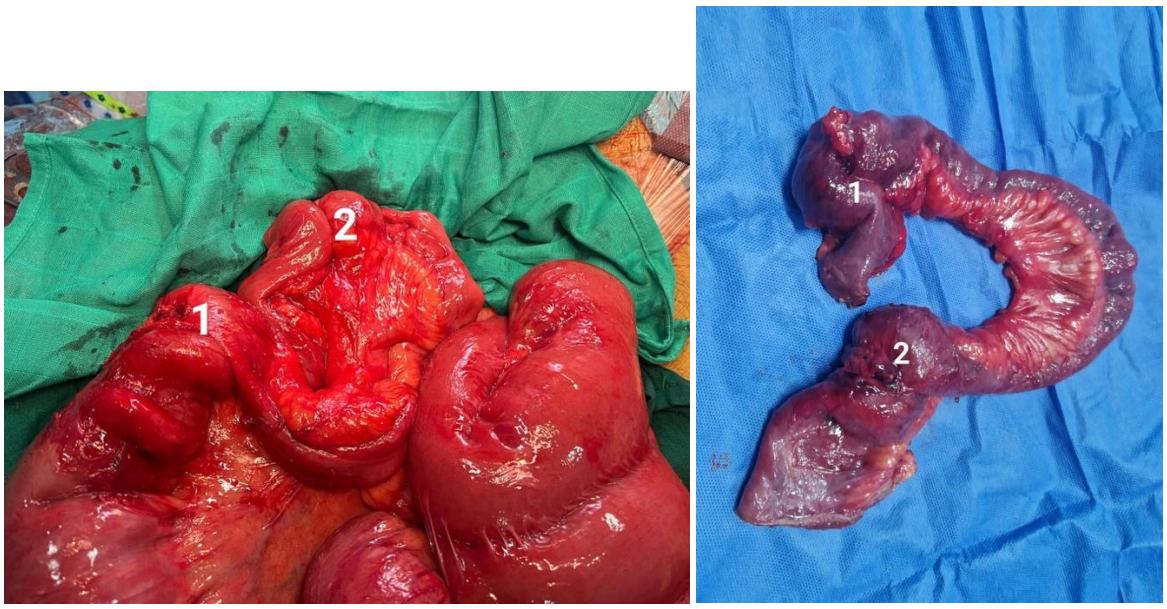

Fig 2: peroperative findings (left) and surgical specimen (right) showing the two synchronous tumors of the small bowel (1 and 2).

III. DISCUSSION:

The small intestine is the longest part of the digestive tract, accounting for 75% of the total length (around 6m, 4 times longer than the large intestine) and represents 90% of the absorptive surface of the intestinal tract [4].

Small bowel obstruction is a frequently encountered emergency in senior patients, whose incidence is rising in parallel with the increasing numbers of elderly patients who need acute medical treatment and emergency surgery. Approximately 10-12% of patients over 65 years old admitted to the ER with abdominal pain are diagnosed with small bowel obstruction.

The most commonly reported causes of small bowel obstruction are adhesions, tumors and hernias, which are involved in over 90% of cases, with a percentage of around 60% attributable to postoperative adhesions alone [5].

Primary tumors of the small intestine are responsible for 1,5% of small bowel obstruction, although intermittent partial obstruction has been identified as the most characteristic manifestation of malignancy in the small bowel [6].

Compared to cancers of other organs of the gastrointestinal tract, cancers of the small bowel are rare all over the world, representing only around 3% of all cancers affecting this organ system. Small bowel cancers affect men and women in relatively equal proportions, with an incidence of 2.6 per 100,000 in men and 2.0 per 100,000 in women. The mean age at diagnosis is 66 [7].

The four most common histopathological types of primary small bowel cancer are adenocarcinoma, neuroendocrine tumor, gastrointestinal stromal tumor and lymphoma.

Around 30-40% of cancers detected in the small intestine are adenocarcinomas, a much lower percentage than in that of the colon, where the vast majority of cancers are adenocarcinomas [4].

Small bowel tumors are characterized by the non-specific nature of the symptoms they generate. This allows tumors to develop and reach an advanced stage before being detected, as the contents of the small intestine are liquid and can pass through even the smallest openings. The most common complaints are abdominal pain, bleeding, nausea and vomiting, weight loss, but these often go undetected and usually manifest as a local complication of the tumor [8].

The emergency clinical presentation may vary with histological type. It is believed that adenocarcinomas can create perforations or obstructions, which was the case for our patient, who underwent emergency surgery due to intestinal obstruction.

In terms of radiological diagnosis, the small intestine remains an area that is difficult to explore by imaging compared to other parts of the body (including the proximal and distal parts of the gastro intestinal tract), despite the wide range of investigational modalities available nowadays. [8]

Although surgical resection remains the treatment of choice for small bowel malignancy, curative resection of the tumor is only possible in 40 to 65% of the cases by the time of diagnosis [6].

Surgery is the single potentially curative treatment. It remains the treatment of preference for localized small bowel adenocarcinoma. Complete surgical resection with negative margins and a proper lymph node dissection is the pillar of treatment [2, 9-11]. The guideline for surgical resection is to remove the tumour with a proximal and distal margin of at least 5 cm, with resection of the adjacent mesentery and appropriate lymph node dissection. The technique and type of resection will vary according to the segment of small intestine concerned. Segmental resection with lymph node curage is the procedure of choice for tumours located in the jejunum and ileum[2, 9, 10]. In the case of adenocarcinoma originating in the second part of the duodenum or with invasion of the ampulla or pancreas, pancreaticoduodenectomy is to be considered [2].

IV. CONCLUSION:

Small bowel adenocarcinoma is rare malignant tumour that can cause small bowel obstruction. The clinical presentation is varied and unspecific, and suspicion of this diagnosis is essential for rapid identification and treatment.

Fortunately, emergency surgery has saved our patient. But early diagnosis and treatment remain important to improve prognosis of small bowel adenocarcinoma.

REFERENCES:

[1]. Bilimoria, K. Y., Bentrem, D. J., Wayne, J. D., Ko, C. Y., Bennett, C. L., & Talamonti, M. S. (2009). Small bowel cancer in the United States: changes in epidemiology, treatment, and survival over the last 20 years. Annals of surgery, 249(1), 63–71. https://doi.org/10.1097/SLA.0b013e31818e4641

[2]. Khosla D, Dey T, Madan R, Gupta R, Goyal S, Kumar N, Kapoor R. Small bowel adenocarcinoma: An overview. World J Gastrointest Oncol. 2022 Feb 15;14(2):413-422. doi: 10.4251/wjgo.v14.i2.413. PMID: 35317322; PMCID: PMC8918997.

[3]. Khalid, W., Ali, D., Rehman, A., Kaiser, M. A., Fatima, T., & Afzal, M. F. (2021). An atypical presentation of small bowel adenocarcinoma; a case report. JPMA. The Journal of the Pakistan Medical Association, 71(4), 1255–1257. https://doi.org/10.47391/JPMA.1214

[4]. Pan SY, Morrison H. Epidemiology of cancer of the small intestine. World J Gastrointest Oncol. 2011 Mar 15;3(3):33-42. doi: 10.4251/wjgo.v3.i3.33. PMID: 21461167; PMCID: PMC3069308.

[5]. Ozturk, E., van Iersel, M., Stommel, M. M., Schoon, Y., Ten Broek, R. R., & van Goor, H. (2018). Small bowel obstruction in the elderly: a plea for comprehensive acute geriatric care. World journal of emergency surgery : WJES, 13, 48. https://doi.org/10.1186/s13017-018-0208-z

[6]. Wilson, J. M., Melvin, D. B., Gray, G. F., & Thorbjarnarson, B. (1974). Primary malignancies of the small bowel: a report of 96 cases and review of the literature. Annals of surgery, 180(2), 175–179. https://doi.org/10.1097/00000658-197408000-00008

[7]. Benson, A. B., Venook, A. P., Al-Hawary, M. M., Arain, M. A., Chen, Y. J., Ciombor, K. K., Cohen, S. A., Cooper, H. S., Deming, D. A., Garrido-Laguna, I., Grem, J. L., Hoffe, S. E., Hubbard, J., Hunt, S., Kamel, A., Kirilcuk, N., Krishnamurthi, S., Messersmith, W. A., Meyerhardt, J., Miller, E. D., … Gurski, L. A. (2019). Small Bowel Adenocarcinoma, Version 1.2020, NCCN Clinical Practice Guidelines in Oncology. Journal of the National Comprehensive Cancer Network : JNCCN, 17(9), 1109–1133. https://doi.org/10.6004/jnccn.2019.0043

[8]. Catena, F., Ansaloni, L., Gazzotti, F., Gagliardi, S., Di Saverio, S., De Cataldis, A., & Taffurelli, M. (2005). Small bowel tumours in emergency surgery: specificity of clinical presentation. ANZ journal of surgery, 75(11), 997–999. https://doi.org/10.1111/j.1445-2197.2005.03590.x

[9]. Locher, C., Batumona, B., Afchain, P., Carrère, N., Samalin, E., Cellier, C., Aparicio, T., Becouarn, Y., Bedenne, L., Michel, P., Parc, Y., Pocard, M., Chibaudel, B., Bouché, O., & Thésaurus National de Cancérologie Digestive (TNCD) (2018). Small bowel adenocarcinoma: French intergroup clinical practice guidelines for diagnosis, treatments and follow-up (SNFGE, FFCD, GERCOR, UNICANCER, SFCD, SFED, SFRO). Digestive and liver disease : official journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver, 50(1), 15–19. https://doi.org/10.1016/j.dld.2017.09.123

[10]. Bouali M, Sylvestre K, Benghait H, El Bakouri A, El Hattabi K, Bensardi FZ, Fadil A. Small bowel adenocarcinoma a rare cause of upper gastrointestinal obstruction (a case report and literature review). Int J Surg Case Rep. 2022 Feb;91:106763. doi: 10.1016/j.ijscr.2022.106763. Epub 2022 Jan 11. PMID: 35030405; PMCID: PMC8760343.

[11]. Wu, T. J., Yeh, C. N., Chao, T. C., Jan, Y. Y., & Chen, M. F. (2006). Prognostic factors of primary small bowel adenocarcinoma: univariate and multivariate analysis. World journal of surgery, 30(3), 391–399. https://doi.org/10.1007/s00268-005-7898-6