Idiopathic Small Bowel Volvulus: A Case Report

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ABSTRACT

Idiopathic small bowel volvulus is a rare cause of acute intestinal obstruction by strangulation in adults and is defined by the twisting of a segment of the small bowel around its mesenteric axis with no obvious underlying congenital or acquired cause.

This article reports the case of a 56-year-old patient, chronic smoker and cannabis user, who was admitted with febrile occlusive syndrome and generalized abdominal contracture.

The abdominal CT scan showed a distension of the small intestines upstream of a probable small bowel volvulus, associated with signs of digestive distress.

Surgical exploration revealed a large peritoneal effusion of distressed fluid, with a volvulus of the distal small bowel causing 1.80 m of small bowel and coecum necrosis from 2.20 ADJ without rotational abnormality or docking defect.

Keywords: Intestinal obstruction, small bowel necrosis, small bowel volvulus.

I. INTRODUCTION

Idiopathic small bowel volvulus is the twisting of a segment of the small bowel around its mesenteric vascular axis with no obvious underlying etiology [1].

It represents a rare and serious condition with high morbidity and mortality in the absence of early and adequate diagnosis and treatment.

We report the case of a small bowel volvulus in a patient of 56 years old and discuss in the light of the literature the epidemiological and anatomical features of small bowel volvulus, as well as its diagnostic and therapeutic management.
II. CASE REPORT

It was a 56 year old patient, chronic smoker, who presented two days before his admission with generalized abdominal pain, associated with an occlusive syndrome, without externalized digestive haemorrhage, evolving in a context of altered general state.

Clinical examination on admission found a conscious patient, haemodynamically and respiratory unstable (BP: 90/55 mmHg, HR: 106 Bpm, FR: 26 C/min, SPO2: 94%, with generalized abdominal contracture.

Abdominal CT scan showed a distension of the small intestines (30 mm) with a hydro-aeric level upstream of a probable small bowel volvulus, associated with signs of digestive distress with parietal thickening of some of the small intestines measuring 11 mm and diffuse mesenteric infiltration with a large peritoneal effusion (Fig. 1 and 2).

Surgical exploration revealed the presence of a large peritoneal effusion made of suffering fluid, with the presence of a volvulus of the distal small intestine responsible for a necrosis of 1.80 m of the small intestine and the coecum from 2.20 of the ADJ without defect of rotation or defect of accelement (Fig. 3 and 4).

The surgical procedure was bowel and coecal resection taking out 1.80 of the necrotic grêle and the coecum with ileocolostomy in double gun barrel.

III. DISCUSSION

In contrast to secondary volvulus, Primary small bowel volvulus is an exceptionally common condition in adults and is defined by a torsion of a segment of the small bowel, especially the ileum, without any obvious underlying cause.

Congenital rotation anomalies, postoperative flanges and adhesions, tumours and diverticula are the most common causes of secondary small bowel volvulus [2].

The functional symptoms of primary small bowel volvulus are not specific, the signs of intestinal obstruction are initiated and dominated by intense abdominal pain reflecting intestinal ischaemia and contrasting with transit arrest which is not as evident [3], [4].

As for the radiological diagnosis, the abdominal CT scan with injection of contrast product represents the leader in the diagnosis of small bowel volvulus, showing the association of evocative radiological signs, such as the whirlpool sign and the beak sign, which translate the torsion around the mesenteric axis, thus the CT scan has an additional primordial contribution by the demonstration of signs of digestive
suffering which translate the gravity of the affection [5]-[7].

Surgical treatment should be carried out as a matter of extreme urgency, its main aim being to check the viability of the loop and restore intestinal blood flow as far as possible [4].

In extreme cases of necrosis or bowel perforation, resection of the necrotic loop is necessary.

IV. CONCLUSION

Idiopathic small bowel volvulus is a rare condition that can lead to serious and fatal complications if not managed promptly and appropriately.

Early diagnosis and emergency surgery in the short term are the only way to reduce the morbidity and mortality associated with small bowel volvulus.

AUTHOR CONTRIBUTIONS

All authors have contributed to the conduct of this work. All authors also declare that they have read and approved the final version of the manuscript.

CONFLICT OF INTEREST

Authors declare that they do not have any conflict of interest.

REFERENCES