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Acute Abdominal Presentation: Ileosigmoid Knotting Causes Small Bowel Obstruction in A 68-Year-Old Male

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Abtract

This case report discusses the presentation of a 68-year-old male patient who presented with severe abdominal pain and vomiting. Upon examination, signs of peritonitis with small bowel obstruction were evident, including failure to pass faeces and flatus. Vital signs indicated hemodynamic instability. The case highlights the importance of prompt diagnosis and management in such critical scenarios.

Keywords: Case Report; Ileosigmoid Knotting; Small Bowel Obstruction; Double-Loop Obstruction; Toxic Shock

Abbreviations: ISK: Ileosigmoid Knotting; SBO: Small Bowel Obstruction; CT: Computed Tomography

Introduction

An uncommon form of intestinal blockage known as ileosigmoid knotting (ISK) occurs when the ileum and sigmoid colon's loops wind around one another. In the West, it is extremely rare compared to the African and Asian regions [1]. Acute abdominal pain accompanied by vomiting is a common presenting complaint in emergency departments. Small bowel obstruction (SBO) is among the differential diagnoses in such cases, necessitating thorough evaluation to prevent complications.

This is a dangerous disorder that usually progresses quickly to both ileum and sigmoid colon gangrene. Therefore, prompt diagnosis and surgical intervention are essential. Because of this condition's rarity and unusual radiological features, pre-operative diagnosis is challenging. For the best course of treatment and a timely diagnosis, awareness of the illness is crucial [2].

Case Presentation

A 68-year-old male presented with 10 hours of central, severe cramp-like abdominal pain, along with vomiting of ingested matter. He has low grade fever but no chills and rigour. He has absence of flatus and faecal passage of same duration. Physical examination revealed signs of hemodynamic instability, including hypotension 80 by 60 mmhg and tachycardia of 104 beat per min. On abdominal examination the abdomen is slightly distended with diffuse abdominal tenderness with positive shifting dullness. Digital rectal examination was unremarkable. The patient then investigated with compete blood count, Hect and blood group and RH. See (Table 1). We opened intravenous line and administered two bags of normal saline. The emergency practitioner considered perforated peptic ulcer and imaged with erect chest x-ray which not showed air under diaphragm. Then we counselled him and taken to operation room. The laparotomy revelled ileosigmoid knotting with gangrene small bowel around 1.5-meter-long segment of ileum 10 CMS form ileocecal valve. See the (Figure 1 and 2). then unblock resection and ileoileal end to end anastomosis done because intraoperatively the vital signs are maintained, and anaesthetist agree to continue the procedure.

Discussion

SBO can present with diverse symptoms, including abdominal pain, vomiting, and constipation. Prompt recognition and management are crucial to prevent complications such as ischemia, perforation, and sepsis. Initial assessment involves history taking, physical examination, and diagnostic imaging. Management strategies may include conservative measures, such as bowel rest and decompression, or surgical intervention in cases of ischemia or obstruction refractory to conservative therapy. ISK is usually associated with toxic shock or hypovolemic shock and has been reported in 36.4% to 78.1% of patients. It is sporadic and with high morbidity and mortality if it occurs in old age [3].

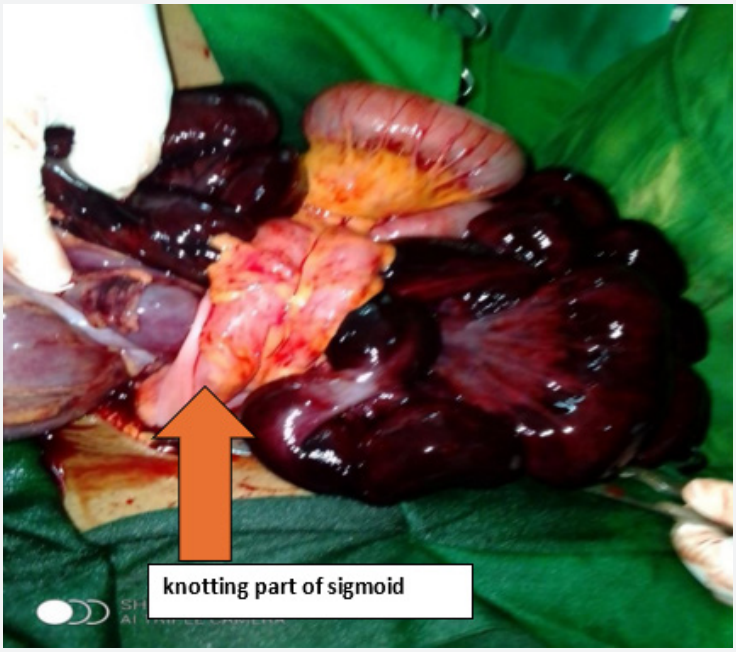

Figure 1: The picture shows the knotting segment of the sigmoid which make the ileum gangrene, taken intraoperative

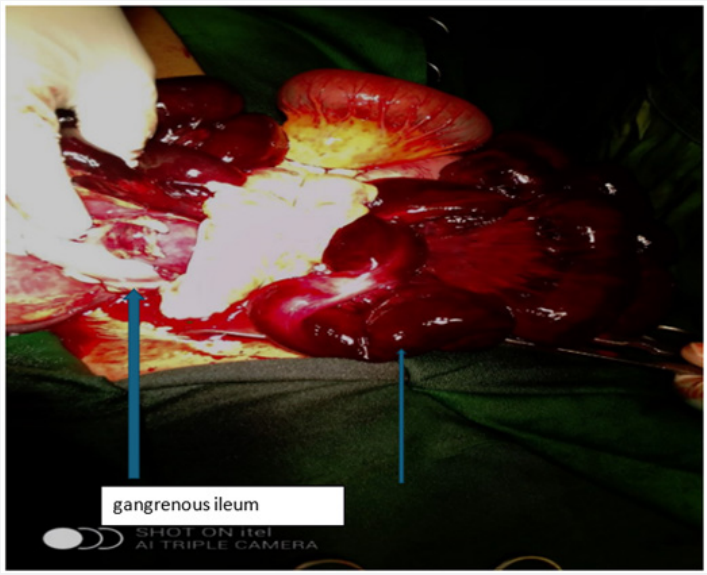

Figure 2: The picture taken during surgery which shows darkened or ischemic segment of the ileum

Table 1: Laboratory report

	Preoperative report	1st post-operative day report	3rd post-operative	
WBC	30.98	20.9	13	
Neutrophil	79.8	84.8		
HCT	48%	27.6	22.3	
Haemoglobin		8.6	6.8	
PLT	226	138	305	
BG AND RH	O positive			
Renal function tests			Creatinine	1.1

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Furthermore, a hypermobile terminal ileum works well in ISK.6,35 Dolichosigmoid is usually acquired; it is occasionally congenital, as shown in cases in childhood.2,36 Contrary to certain opposing views, 32 the consensus is that growing older raises dolichosigmoid, which raises the incidence of SV and ISK [4]. Alver O et al. classified the condition in 1993 by taking the direction of the torsion into consideration and using the ileum and/or sigmoid colon as the active component. Type I (55%): The ileum, which is the active component, encircles the sigmoid colon, which is the passive component. Type 1a: 360-degree rotation Type 1b: Rotate anticlockwise [5].

Ileosigmoid knotting cannot be diagnosed with specific blood tests or radiographic imaging, making the diagnosis challenging prior to surgery. For imaging, a computed tomography (CT) scan is the most popular option. A CT scan usually shows a whirlwind indication along with evidence of ischemia, the left colon's median deviation, and the convergence of the mesenteric arteries towards the whirlwind [6].

Resection of the ileum is necessary in patients with gangrenous ileum but a viable sigmoid. Abdominal closure can be facilitated intraoperatively by decompressing the sigmoid. The distal ileum's length determines the best option for bowel reconstruction when it is long enough to do ileoileal anastomosis, which is highly anatomical [7].

Conclusion

This case underscores the significance of recognizing and promptly managing SBO in patients presenting with acute abdominal pain and vomiting. A systematic approach to evaluation and appropriate intervention can improve patient outcomes and prevent serious complications. The complication is more than this if occur due to ileosigmoid knotting [8].

Due to the volume loss and toxic material absorption arising from intestinal obstruction and bowel ischemia or gangrene, ISK rapidly leads to hypovolemic and/or toxic shock in most patients. For this reason, a rapid and effective resuscitation followed by emergency laparotomy is essential in the treatment of ISK [9]. Patients who present with intestinal blockage and acute abdominal pain should take it into consideration. Ileo-sigmoid knotting—an uncommon cause of intestinal obstruction-Rahimi-Movaghar E, Tahouri [10]. Our patient was discharged safely after eight days of hospital stay with oral antibiotics and irone supplement.

Author's Contributions

Author A

- Conception of the work
- Drafting the work and revising the work critically for important intellectual content
- Final approval of the version to be published
- Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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