SINISTER ABDOMINAL PAIN: SMALL BOWEL VOLVULUS IN A CHILD WITH ACUTE LYMPHOBLASTIC LEUKEMIA (A CASE REPORT)

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INTRODUCTION

Acute lymphoblastic leukemia (ALL) accounts for about 25% of cancers, most commonly affecting children aged 2–5 years. Though primarily hematologic, ALL can cause gastrointestinal (GI) complications, increasingly recognized with intensive treatments and better survival. Small bowel volvulus (SBV), a rare but life-threatening GI event, may occur even during maintenance therapy. This case highlights SBV as an uncommon yet critical complication in pediatric ALL, emphasizing early recognition, prompt surgery, and multidisciplinary management. The report follows CARE guidelines.

CASE

A 4-year-old boy with precursor B-cell ALL (standard risk) completed induction chemotherapy with negative MRD and began maintenance therapy. During maintenance, he developed palatal mucormycosis with *Aspergillus flavus* growth, successfully treated with posaconazole, followed by transient cardiac dysfunction. Later, he had recurrent abdominal pain and melena, initially managed as neutropenic colitis. He was re-admitted with severe abdominal pain, hypotension, and acidosis. CECT revealed small bowel volvulus with malrotation and Ladd's bands. Emergency laparotomy with adhesiolysis and bowel resection was performed; histology showed perforation without leukemic infiltration. Postoperative recovery was uneventful, and maintenance therapy was resumed. He remains well and symptom-free on follow-up.

Figure-1: CT abdomen soft tissue window in axial plane reveals twisting of ileal loop around root of mesentery with typical whirlpool sign

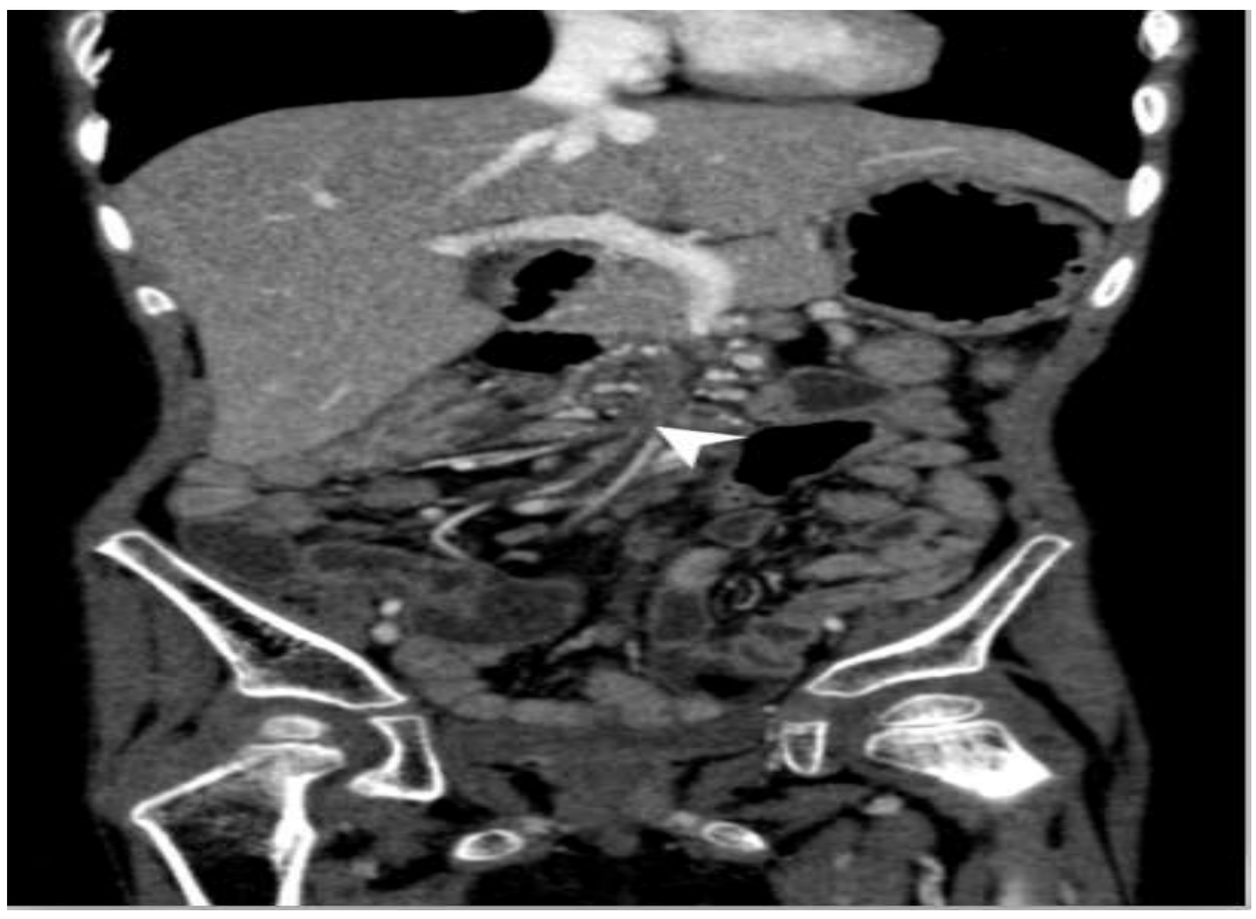

Figure- 2: Coronal section through abdomen. Focal twisting of small bowel (arrow head) around root of mesentery

DISCUSSION

CT showed the classic "whirlpool sign," confirming small bowel volvulus and prompting emergency surgery. Imaging is crucial for GI complications in pediatric leukemia—ultrasound is first-line, with CT/MRI reserved for unclear or severe cases. Volvulus in ALL is rare, linked to malrotation, adhesions, or treatment-related bowel fragility. Early diagnosis and prompt surgery are vital to prevent ischemia and sepsis. The case highlights the need for vigilance and multidisciplinary coordination in managing abdominal emergencies in immunocompromised children.

CONCLUSION

Small bowel volvulus is a rare but potentially fatal GI complication in children with ALL. In immunocompromised patients, abdominal symptoms should be investigated promptly and comprehensively, as early recognition and surgical intervention are critical to preventing ischemia, perforation, and sepsis. This case underscores the importance of maintaining a broad differential diagnosis for acute abdominal pain in pediatric oncology patients, considering both treatment-related and anatomical causes. A multidisciplinary approach involving oncology, radiology, and pediatric surgery is essential for timely diagnosis and optimal outcomes.