CASE REPORT

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Uncommon Presentation of Stromal Tumor Causing Small Bowel Obstruction: A Case Report

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ABSTRACT

This case report describes a rare presentation of gastrointestinal stromal tumor (GIST) causing mechanical small bowel obstruction in a 30-year-old female patient with a history of hepatitis B. Initial misdiagnosis as gastritis led to delayed recognition of the underlying pathology. Emergency laparoscopic intervention revealed mixed epithelioid and spindle cell GIST with high risk features, prompting segmental small bowel resection. Histopathological examination confirmed a PDGFRA mutation, loss of c-kit and DOG 1 expression, and a high mitotic rate, categorizing the tumor as high risk. This case highlights the importance of considering GIST in the differential diagnosis of abdominal symptoms and emphasizes the need for timely intervention to prevent complications.

Keywords: Gastrointestinal stromal tumor, small bowel obstruction, hepatitis B, laparoscopy, histopathology, imatinib

INTRODUCTION

Gastrointestinal stromal tumors (GISTs) are uncommon mesenchymal tumors that can arise anywhere along the gastrointestinal tract [1]. We present a case of GIST causing small bowel obstruction that was initially misdiagnosed as gastritis, highlighting the challenges in recognizing this rare presentation.

CASE PRESENTATION

A 30-year-old female patient with a history of hepatitis B presented with severe upper abdominal pain and vomiting. Initial diagnosis of gastritis was made at a local clinic, overlooking the underlying GIST. Emergency laparoscopy revealed mechanical small-bowel obstruction due to ileocecal invagination. Segmental resection of the small bowel, including the tumor, was performed, followed by reconstruction using an ileoileostomy.

Histopathological Examination

The resected specimen exhibited mixed epithelioid and spindle cell GIST with PDGFRA mutation, loss of c-kit and DOG 1 expression, and a high mitotic rate. Tumor extensions reached the mesenterial incision, and were classified as high-risk lesions (Category 5 Miettinen and Lasota). The TNM classification was pT2, pNx, L0 V0 Pn0, and the histopathological grading indicated a high mitotic rate.

DISCUSSION

This case highlights the challenges of GIST diagnosis, particularly when presenting with atypical symptoms and in the presence of coexisting medical conditions [2]. The necessity for prompt recognition and intervention is underscored by the high-risk tumor features, emphasizing the importance of considering GIST in the differential diagnosis of abdominal complaints [3].

GISTs can uncommonly present with small bowel obstruction [4], and a high index of suspicion is crucial for timely diagnosis and management [5]. This case emphasizes the significance of thorough clinical evaluation, appropriate imaging studies (Figure 1a-c), and histopathological examination in establishing an accurate diagnosis and guiding further therapeutic interventions. The patient's case was discussed at a tumor conference, and a comprehensive follow-up plan, including abdominal computed tomography examinations and adjuvant therapy with imatinib [6], was recommended.

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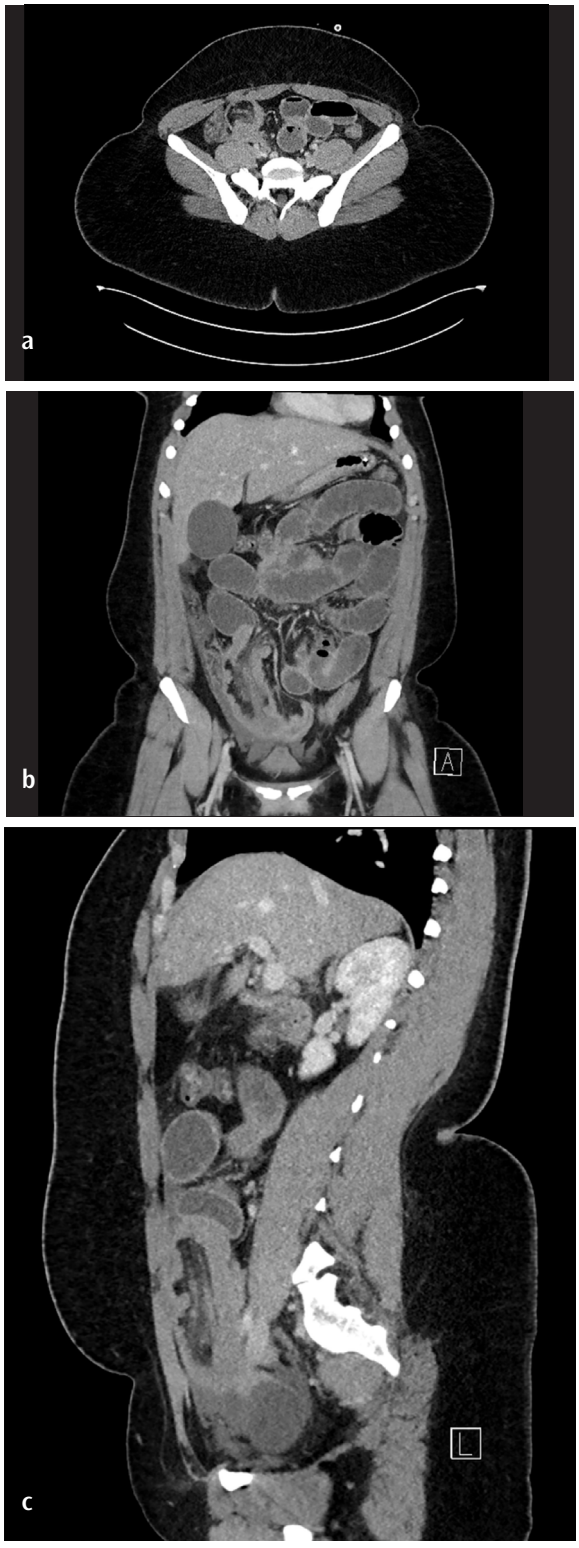

Figure 1. CT images of the case. (a) Axial plane, (b) coronal plane, (c) sagittal plane

Ethics

Informed Consent: Obtained.

Authorship Contributions

Surgical and Medical Practices: Z.A., R.K., S.S., Concept: S.S., Design: R.K., S.S., Data Collection or Processing: R.K., Analysis or Interpretation: Z.A., R.K., Literature Search: Z.A., R.K., Writing: Z.A., R.K.

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