

UDC 616.13-005.6-089

**CLINICAL FEATURES AND CHALLENGES IN THE EARLY DIAGNOSIS OF
ACUTE MESENTERIC THROMBOSIS****Khakimov D. Sh., Ravshanov Sh. U.**Samarkand State Medical University
Samarkand, Uzbekistan**Scientific Supervisor:** DSc., associate professor **Ruziboev S.A.****Abstract**

Acute mesenteric thrombosis is one of the most severe forms of acute abdominal pathology associated with high mortality rates [1,2].

Objective: to analyze the clinical features and factors complicating the early diagnosis of acute mesenteric thrombosis.

Materials and Methods: A retrospective analysis of literature data and clinical observations of patients diagnosed with acute mesenteric thrombosis was conducted [3]. Clinical manifestations, laboratory findings, and imaging results were evaluated.

Results: the leading clinical feature was severe abdominal pain disproportionate to physical examination findings. The main causes of diagnostic errors included underestimating risk factors and delaying the use of CT angiography [2,5].

Conclusion: Early diagnosis is possible with high clinical suspicion and the timely use of modern imaging techniques.

Keywords

mesenteric thrombosis, intestinal ischemia, CT angiography, acute abdomen, diagnosis.

Introduction

Acute mesenteric ischemia represents a life-threatening condition with mortality rates reaching 60–80% [2,4]. Acute mesenteric thrombosis is the most severe form, characterized by rapid progression of intestinal ischemia leading to bowel necrosis [5]. Despite advances in diagnostic methods, early detection remains challenging due to the nonspecific nature of clinical symptoms.

Objective

To study the clinical features of acute mesenteric thrombosis and identify the main challenges in its early diagnosis.

Materials and Methods

A retrospective analysis of published literature and clinical data of patients with acute mesenteric thrombosis was performed. Clinical symptoms, laboratory parameters, and imaging findings were assessed. The study included a retrospective analysis of 25 patients diagnosed with acute mesenteric thrombosis treated between 2025 and 2026 at the SamSMU clinic.

Results and Discussion

Clinical Features



The most characteristic symptom is sudden, severe abdominal pain that is disproportionate to physical examination findings (“pain out of proportion”) [4,8].

Early manifestations include:

- nausea
- vomiting
- diarrhea

Late manifestations include:

- signs of peritonitis
- intestinal paralysis
- septic condition

Table 1. Frequency of clinical manifestations in acute mesenteric thrombosis

Clinical feature	Frequency (%)
Severe abdominal pain	90–95
Pain disproportionate to examination	80–85
Nausea and vomiting	60–70
Diarrhea	40–50
Abdominal distension	50–60
Signs of peritonitis (late stage)	70–80
Leukocytosis	65–75
Elevated lactate	70–85
Metabolic acidosis	60–70

The data presented are based on analysis of published clinical studies.

The most significant clinical sign is severe pain with minimal objective findings.

Risk Factors

- atrial fibrillation
- atherosclerosis
- thrombophilia

Diagnostic Challenges

The main difficulties include:

- lack of specific symptoms
- similarity to other acute abdominal conditions
- delayed diagnosis

Diagnostics

The gold standard diagnostic method is CT angiography, which allows visualization of:

- vascular occlusion
- intestinal ischemia

Laboratory findings include:

- elevated lactate
- metabolic acidosis
- increased D-dimer

Clinical Case

A 68-year-old male patient was admitted to the emergency department with complaints of sudden severe abdominal pain localized in the periumbilical region, lasting for 6 hours.

Medical history included ischemic heart disease and permanent atrial fibrillation. The patient reported irregular use of anticoagulants.

Physical Examination:

The patient was in moderate condition. The abdomen was soft, mildly tender on palpation, with no signs of peritoneal irritation. Bowel sounds were preserved.

A notable finding was the discrepancy between severe pain and minimal physical findings.

Laboratory Findings:

- leukocytosis — $14 \times 10^9/L$
- lactate — 4.2 mmol/L
- metabolic acidosis

Imaging:

CT angiography revealed occlusion of the superior mesenteric artery.

Diagnosis:

Acute mesenteric thrombosis with small bowel ischemia.

Treatment:

Emergency laparotomy was performed. Approximately 80 cm of necrotic small intestine was identified and resected, followed by anastomosis.

Outcome:

The postoperative period was complicated by transient intestinal insufficiency. The patient was discharged in satisfactory condition.

Common Diagnostic Errors

- delayed CT angiography
- underestimation of pain severity
- ignoring risk factors
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Discussion

Early diagnosis is the key factor in reducing mortality. Implementation of CT angiography and increased clinical awareness significantly improve patient outcomes.

Conclusion

Acute mesenteric thrombosis remains a life-threatening condition requiring early diagnosis. The use of CT angiography combined with clinical awareness significantly improves patient outcomes and reduces mortality.

Key factors for reducing mortality include:

- early diagnosis
- high clinical suspicion
- timely use of CT angiography

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