

Optimal Treatment Strategy For Gastrointestinal Bleeding In Pediatric Patients

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Received: 06 December 2025; **Accepted:** 27 December 2025; **Published:** 31 January 2026

Abstract: Gastrointestinal bleeding (GIB) in children remains one of the most serious and challenging problems in pediatric abdominal surgery. The aim of this study was to evaluate the effectiveness of pharmacological hemostatic therapy and to determine the optimal treatment strategy for gastrointestinal bleeding of various etiologies in pediatric patients.

A retrospective analysis of 131 cases of gastrointestinal bleeding in children treated at the 2nd Pediatric Surgical Clinical Hospital between 2015 and 2025 was conducted. All patients underwent comprehensive clinical and laboratory examinations, hemostatic therapy, and dynamic monitoring.

The results demonstrated that timely initiated conservative hemostatic therapy was effective in the majority of cases. In patients presenting with signs of an acute abdomen, emergency surgical intervention was required. After stabilization and cessation of bleeding, instrumental diagnostic methods are mandatory to identify the bleeding source and to determine further management.

Keywords: Gastrointestinal bleeding, children, hemostasis, hematemesis, intussusception.

Introduction: Gastrointestinal bleeding in children is one of the most severe complications of diseases of the digestive system. Among pediatric intestinal pathologies, a significant proportion is represented by conditions in which rectal bleeding is the leading clinical symptom [2,3,5,6].

Bleeding from various parts of the gastrointestinal tract constitutes a serious problem in pediatric surgery. Timely diagnosis is based on knowledge of the possible etiological factors, which allows the selection of an appropriate therapeutic strategy. The causes of gastrointestinal bleeding in children differ significantly from those in adults and demonstrate pronounced age-related characteristics, which must be considered during diagnostic and therapeutic decision-making [1–5].

Despite extensive coverage in national and international literature, many issues related to diagnosis, treatment, prevention, and prognosis of

pediatric gastrointestinal bleeding remain unresolved [5–8].

Aim of the Study

To evaluate the effectiveness of pharmacological agents and determine the optimal treatment strategy for gastrointestinal bleeding in pediatric patients.

METHODS

A retrospective study included 131 pediatric patients with gastrointestinal bleeding who were treated at the 2nd Pediatric Surgical Clinical Hospital in Tashkent from 2015 to 2025.

All patients underwent comprehensive clinical and laboratory evaluations, received hemostatic and antibacterial therapy for concomitant inflammatory conditions, and were followed up dynamically.

The etiological factors of gastrointestinal bleeding were as follows:

- duodenal ulcer disease — 18 cases;

- acute gastric and duodenal ulcers associated with nonsteroidal anti-inflammatory drug use — 11 cases;
- intestinal intussusception — 56 cases;
- intestinal volvulus due to malrotation — 12 cases;
- erosive gastritis — 9 cases;
- hiatal hernia — 5 cases;
- gastric hemangioma — 2 cases;
- unidentified bleeding source — 16 cases.

In most patients with bleeding of unclear etiology, a history of salicylate use during febrile episodes associated with acute viral infections was identified.

RESULTS

Careful assessment of medical history facilitated presumptive localization and identification of the bleeding source. Eighteen patients had a documented history of peptic ulcer disease, while recurrent bleeding was observed in five cases.

The severity of the patients' condition was determined by the degree of blood loss and anemia. At admission, the general condition was assessed as moderately severe in 9 patients, severe in 57, and moderately severe in 65 patients.

The duration and intensity of bleeding varied from mild to massive. Bloody stools were observed in 97 patients, and combined lower gastrointestinal bleeding with hematemesis occurred in 34 cases.

All patients received hemostatic therapy immediately upon admission. Red blood cell transfusion was performed in 96 patients when erythrocyte counts were below $3.0 \times 10^{12}/L$ and hemoglobin levels were below 70 g/L.

Bleeding was successfully controlled within the first 24 hours of hospitalization in 98 patients. Surgical intervention was required in 78 cases due to intestinal intussusception and volvulus, including bowel resection with end-to-end anastomosis in 13 patients.

CONCLUSIONS

1. Gastrointestinal bleeding in children requires comprehensive examination and active dynamic monitoring.
2. Conservative hemostatic therapy is effective in the majority of pediatric patients.
3. After stabilization and cessation of bleeding, instrumental diagnostic procedures are mandatory to identify the bleeding source.
4. Emergency surgical intervention is indicated in cases of gastrointestinal bleeding accompanied by

signs of an acute abdomen.

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