

TREATMENT STRATEGY FOR DUODENAL ULCER DISEASE COMPLICATED BY BLEEDING

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Abstract. This study is devoted to evaluating and improving the treatment strategy for duodenal ulcer disease complicated by bleeding. A total of 45 patients aged 18–75 years were included in the study. The clinical condition of patients, laboratory parameters, and endoscopic findings were comprehensively analyzed. The effectiveness of endoscopic hemostasis methods, proton pump inhibitors, and infusion therapy was assessed. The results demonstrated that a comprehensive treatment approach allows rapid and effective control of bleeding and reduces the risk of recurrence ($p<0.05$) [1,2].

Keywords: duodenal ulcer, bleeding, hemostasis, endoscopy, treatment strategy.

Introduction. Duodenal ulcer disease is one of the most common pathologies of the gastrointestinal tract, and its development is associated with *Helicobacter pylori* infection, unhealthy dietary habits, stress factors, and the use of medications such as nonsteroidal anti-inflammatory drugs [1,3]. This disease is typically chronic and characterized by a high tendency to recur.

One of the most severe complications of duodenal ulcer disease is gastrointestinal bleeding, which poses a serious threat to the patient's life. In such cases, patients often develop hemodynamic disturbances, anemia, hypovolemia, and a significant deterioration of general condition. Therefore, timely diagnosis and appropriate therapeutic management are critically important [2].

In modern clinical practice, endoscopic hemostasis is considered the primary method for controlling bleeding. However, in certain cases, pharmacological therapy or surgical intervention may be required. Thus, accurate assessment of the patient's condition and the selection of an individualized treatment strategy are of great clinical importance [4].

This study aims to identify effective approaches for the management of duodenal ulcer bleeding and to optimize treatment strategies in clinical practice.

Materials and methods. This cross-sectional study was conducted in a hospital setting. A total of 45 patients aged 18–75 years with duodenal ulcer disease complicated by bleeding were included. The mean age of the patients was 44.8 ± 9.6 years.

All patients underwent a comprehensive clinical evaluation. Clinical assessment included analysis of patient complaints, medical history, and hemodynamic parameters. Laboratory investigations included complete blood count, hemoglobin levels, hematocrit, and coagulation profile to assess the severity of bleeding.

Instrumental diagnostics were primarily based on fibrogastroduodenoscopy (FGDS), which allowed identification of the bleeding source, localization of the ulcer, and assessment of bleeding activity according to the Forrest classification [2,5].

The treatment strategy was based on a comprehensive approach. It included endoscopic hemostasis methods (adrenaline injection, electrocoagulation), administration of proton pump inhibitors, infusion therapy, and symptomatic management. In severe cases, surgical intervention was performed when indicated.

The obtained data were analyzed in percentages, and statistical significance was accepted at $p < 0.05$.

Results. The study results demonstrated that the primary clinical manifestation in patients was gastrointestinal bleeding, which presented in various forms. Hematemesis was observed in 25 patients (55.6%), while melena was detected in 32 patients (71.1%). In some cases, both symptoms were present simultaneously.

Laboratory findings revealed a significant decrease in hemoglobin levels, with a mean value of 94.2 ± 13.8 g/L, indicating the presence of moderate anemia in most patients.

According to endoscopic findings, patients were classified based on the Forrest classification as follows: Forrest I – 15 patients (33.3%), Forrest II – 21 patients (46.7%), and Forrest III – 9 patients (20.0%). These results indicate the predominance of active and recent bleeding cases.

Endoscopic hemostasis was successfully achieved in 37 patients (82.2%), resulting in effective control of bleeding. Rebleeding occurred in 5 patients (11.1%). Surgical intervention was required in 3 patients (6.7%).

Patients who received comprehensive treatment showed faster clinical improvement and stabilization of hemodynamic parameters ($p < 0.05$) [4,6].

Discussion. The findings of this study confirm the high effectiveness of endoscopic hemostasis in the management of duodenal ulcer bleeding. This minimally invasive method allows rapid and reliable control of bleeding, thereby improving patient outcomes [2].

The use of proton pump inhibitors reduces gastric acidity and stabilizes clot formation at the ulcer site, which significantly decreases the risk of rebleeding [6].

Application of the Forrest classification enables appropriate risk stratification of patients and facilitates the selection of optimal treatment strategies.

The results are consistent with previously published studies and confirm that a comprehensive and stepwise therapeutic approach is the most effective strategy in managing this condition [1,5].

Conclusion. Duodenal ulcer disease complicated by bleeding is a severe clinical condition requiring prompt and effective medical intervention.

Endoscopic hemostasis remains the primary and most effective method of treatment in such cases.

A comprehensive therapeutic approach, including proton pump inhibitors and infusion therapy, significantly improves treatment outcomes and reduces the risk of recurrent bleeding.

Practical significance. The results of this study have important implications for clinical practice in improving the management of patients with duodenal ulcer bleeding.

The combined use of endoscopic and pharmacological therapies enhances treatment effectiveness.

The application of the Forrest classification allows accurate patient assessment and appropriate selection of treatment strategies.

The implementation of standardized treatment protocols in emergency care settings plays a crucial role in reducing mortality and improving patient outcomes.

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