

Scientific treatment of esophageal and gastric variceal rupture bleeding in the “fatal stage” of liver cirrhosis

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The journey to recovery for patients with liver cirrhosis is fraught with numerous risks, among which esophageal and gastric variceal rupture bleeding stands as one of the most perilous. This condition represents an acute medical emergency—sudden in onset, rapid in progression, and potentially fatal within a short period. Timely diagnosis and prompt treatment are therefore crucial. The Hepatobiliary and Gastrointestinal Center at Beijing You'an Hospital has accumulated extensive clinical experience in managing esophageal and gastric variceal rupture bleeding in patients with cirrhosis. The center is dedicated to safeguarding lives with unwavering commitment.

Why is it called a “critical bottleneck”?

Esophageal and gastric variceal rupture bleeding is a common complication that occurs during the progressive stages of liver cirrhosis. When cirrhosis causes sustained elevation of portal vein pressure and the development of collateral circulation, the veins in the esophagus and gastric fundus become abnormally dilated and thinned—much like an overinflated balloon. Once these fragile vessels rupture, they can cause severe hemorrhage, typically presenting as melena, vomiting of coffee-colored material, or massive

hematemesis with fresh blood. Because the bleeding begins abruptly and is difficult to control, patients may rapidly develop hemorrhagic shock or die within a short time. The high mortality and recurrence rates of esophageal and gastric variceal rupture bleeding make it a grave threat to life and health—truly the “fatal threshold” for patients with cirrhosis.

Multi-pronged scientific treatment

In the face of this life-threatening emergency, our center has developed a comprehensive treatment strategy based on the principle of “emergency hemostasis and prevention of recurrence.” Through this scientific approach, we strive to give every patient a fighting chance for survival.

Urgent hemostasis—every second counts

Medication hemostasis: Once bleeding symptoms appear, physicians immediately administer drugs that lower portal vein pressure, combined with hemostatic agents to promote clot formation and control active bleeding.

Endoscopic treatment: This is one of the most com-

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monly used and effective methods for achieving hemostasis in these critical moments. Skilled endoscopists insert a gastroscope into the esophagus and stomach to locate the bleeding site and apply sclerosing agent or tissue glue injections, or they perform rubber band ligation. Sclerotherapy injection involves injecting medication directly into varicose veins to harden and occlude them. Rubber band ligation is akin to “sucking bubbles”: the varicose vein is tied off with a rubber band, blocking blood flow, promoting necrosis and shedding of the vessel, and stopping the bleeding quickly. This technique achieves a hemostasis success rate of >90%, with minimal trauma and rapid recovery.

Application of three-lumen, two-balloon catheter: When medication and endoscopic therapy fail, a three-lumen, two-balloon catheter can be used for compression hemostasis. This is a temporary, life-saving measure designed to gain precious time for further treatment.

Preventing recurrence—long-term management to safeguard health

Medications to reduce portal vein pressure: After bleeding is controlled, the patient’s condition is reassessed. Drugs that slow heart rate, reduce cardiac output, and decrease portal venous flow are administered to lower vascular pressure and prevent rebleeding.

Regular follow-up gastroscopy: Based on each patient’s condition, follow-up endoscopic examinations are scheduled to monitor esophageal and gastric varices, determine the timing for retreatment, and minimize the risk of future bleeding.

Surgical and interventional options: For patients who respond poorly to medication or endoscopic therapy, a transjugular intrahepatic portosystemic shunt or surgi-

cal intervention may be considered.

Scientific prevention and control of the “fatal checkpoint”—a joint effort between doctors and patients

Emergency response: If vomiting of blood or black stools occurs, the patient should immediately lie on their side or turn their head to one side to prevent aspiration. The caregiver should stay calm, call emergency services (120), and record the time, volume, and color of the bleeding to assist in medical evaluation.

Dietary management: Strict fasting is required during the active bleeding phase. After bleeding stops, food should gradually progress from liquid (such as rice soup) to semi-liquid (such as porridge) and then to soft foods. Coarse, hard, spicy, or irritating foods should be avoided to prevent vessel injury and recurrence.

Regular follow-up: After discharge, continued vigilance is essential. Patients should strictly follow medical advice regarding medication, attend regular check-ups, and actively cooperate with doctors to monitor their condition and adjust treatment as needed.

Although rupture and bleeding of esophageal and gastric varices in cirrhosis are highly dangerous, mastering scientific treatment methods and maintaining a positive attitude can greatly improve survival chances and help protect life.

The Hepatology and Digestive Center of Beijing Youan Hospital

The Hepatology and Digestive Center of Beijing Youan Hospital, affiliated with Capital Medical University, possesses comprehensive and advanced diagnostic and therapeutic technologies along with extensive clinical experience in managing gastrointestinal bleeding.

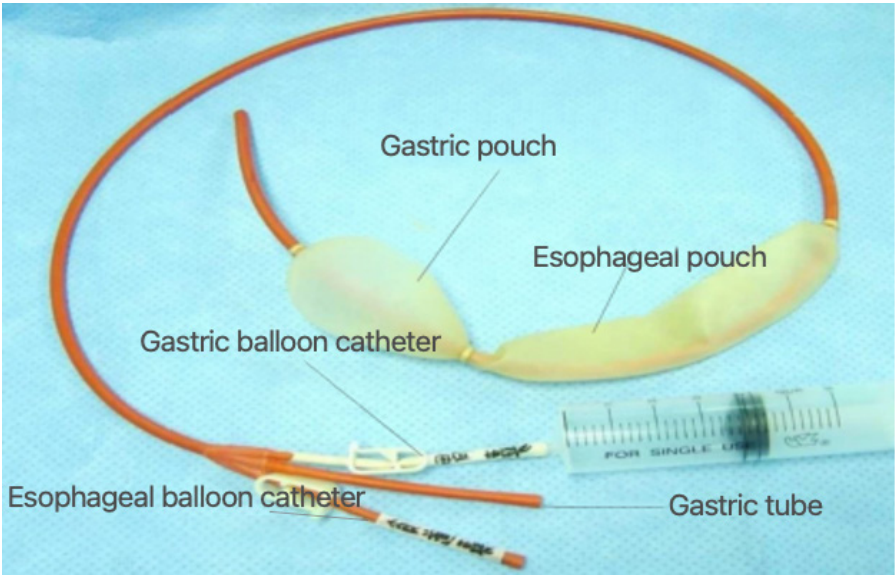
Each year, the center treats more than 3,200 patients with chronic liver disease and portal hypertension-related esophagogastric variceal bleeding, maintaining a leading position in the treatment of chronic liver and biliary diseases, as well as digestive system disorders related to infectious diseases and critical conditions. It stands as one of the foremost institutions in this field in China. In 2023, the hospital’s gastroenterology department ranked 17th among the national top 20 in the STEM gastroenterology rankings.

The Liver Disease Digestive Center comprises Liver Disease Digestive Wards 1 and 2, the Bleeding Center, and the Endoscopy Center. It is staffed by a highly qualified medical team whose members not only possess strong medical expertise but have also developed sharp clinical insight and decisive judgment through years of hands-on experience. When patients present with gastrointestinal bleeding, physicians can swiftly determine the location, cause, and severity of the bleeding and formulate individualized treatment plans.

Advanced endoscopic diagnosis and treatment techniques form the core of effective gastrointestinal bleeding management. Through endoscopic examination,

doctors can directly visualize the internal condition of the digestive tract, accurately identify bleeding sites, and perform procedures such as esophageal and gastric variceal ligation, sclerotherapy, and tissue adhesive injection therapy. These interventions effectively control bleeding, relieve patient discomfort, and reduce complications.

In addition, the center maintains a comprehensive, high-level multidisciplinary consultation system that includes close collaboration with the departments of surgery, liver transplantation, vascular intervention, emergency medicine, and intensive care. This integrated approach ensures full treatment support for patients with complex, severe, or refractory gastrointestinal bleeding. The medical staff at the Bleeding Center accurately identify bleeding causes through endoscopic examination and provide timely treatment using endoscopic and pharmacological methods, achieving a hemostasis success rate of >95%. The center also offers capsule endoscopy examinations. Therefore, whether gastrointestinal bleeding arises from esophageal and gastric varices due to chronic liver disease, cirrhosis, or portal hypertension, or from other causes, patients can receive timely, effective, and comprehensive treatment here.



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