

BRIEF REPORT

Instant control of fundal variceal bleeding with a folkloric medicinal plant extract: Ankaferd Blood Stopper

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Variceal bleeding is one of the fatal complications of portal hypertension.¹ As many as 33% of the patients with cirrhosis have gastric varices, and one fourth of them will bleed within 2 years.² Gastric variceal bleeding, compared with bleeding from esophageal varices, has a poorer prognosis, is associated to more blood loss, and has higher rebleeding and mortality rates.³

Ankaferd Blood Stopper (ABS) (Ankaferd Sağlık Ürünleri, A.Ş., Istanbul, Turkey), a standardized mixture of 5 plants, has been used historically as an hemostatic agent, yet its mechanism of action remains unknown.⁴ The simplicity of its application and its effectiveness make it an attractive alternative treatment for miscellaneous hemorrhagic

conditions. Its use is approved in Turkey for external hemorrhage and dental surgery bleeding. The local ethics committee at our institution approved its use in GI hemorrhage. As of May 2009, according to our English MEDLINE search, there are only 3 case reports demonstrating the effects of ABS in GI hemorrhage.⁵⁻⁷ Here we present a case of fundal variceal hemorrhage that was managed with endoscopic administration of this novel agent.

CASE REPORT

A 70-year-old man was admitted to the hospital with upper GI bleeding. He stated that he had vomited fresh

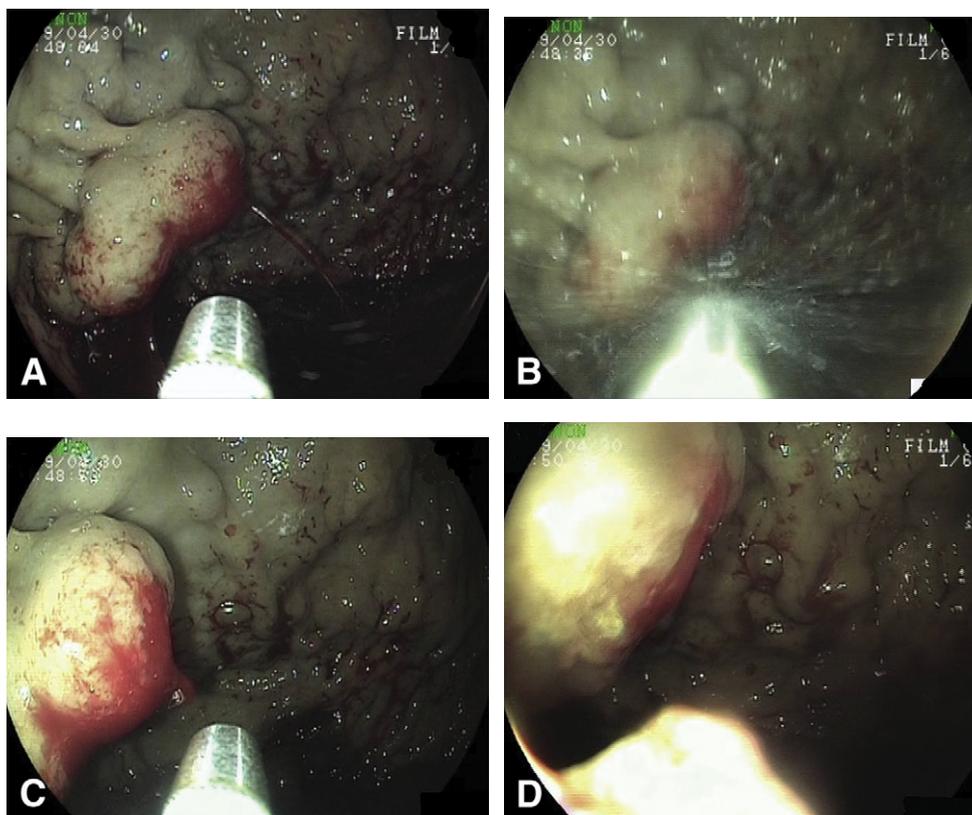


Figure 1. **A**, Spurting hemorrhage from tumor-shaped fundal varices is shown. **B**, ABS is sprayed over the lesion through a washing pipe. **C**, Bleeding stops in 18 seconds. **D**, Two minutes after the application of ABS, a protein network, which gives the yellowish color, is formed and covers the bleeding site. The hemorrhage is completely controlled.



Figure 2. On day 5, a second endoscopy demonstrates varices with a clean surface. The mucosa on the previously bleeding site is completely healed. Later, variceal obturation with cyanoacrylate was successfully performed, and the patient was discharged.

blood. He had cirrhosis caused by hepatitis B for the past 3 years. His blood pressure was 85/50 mm Hg and heart rate was 85 beats per minute. His hemoglobin level was 6.9 g/dL, platelet count was 95,000/mm³, serum creatinine was 1.9 mg/dL, prothrombin time was 20.4 seconds (upper limit 16 seconds), and international normalized ratio was 1.45. Somatostatin infusion was started, and 2 units of packed red blood cells were transfused. Upper endoscopy was performed at the 10th hour and revealed grade 1-2 esophageal varices without any stigmata of bleeding and actively bleeding and tumor-shaped varices in the fundus (F3, Lg-f; graded according to the Japanese Society for Portal Hypertension⁸) (Fig. 1A). Before the procedure, informed consent regarding the experimental use of ABS was obtained. Three vials (2 mL each) of ABS were sprayed through the washing pipe over the bleeding site (Fig. 1B). Immediate hemostasis was achieved in 18 seconds without any further treatment (Fig. 1C and D). On day 5, another endoscopic examination was performed and revealed clean surface fundal varices (Fig. 2), and a successful variceal obturation by cyanoacrylate injection was performed.

On day 7, at discharge, the patient's final hemoglobin level was 9.5 mg/dL. No further bleeding episode occurred in the hospital or during outpatient follow-up.

DISCUSSION

ABS is a derivate of 5 plants. It is locally active on the bleeding surface. When ABS is applied to the bleeding site, it interacts with plasma proteins, forms an encapsulated protein network, and stimulates erythrocyte aggregation.⁴ The drug does not require injecting; spraying over the bleeding site is sufficient for hemostasis.

Although gastric varices bleed less frequently than esophageal varices, the rebleeding and mortality rates for gastric variceal hemorrhage are higher.³ There is no universal consensus on the treatment of gastric varices. According to guidelines, when bleeding occurs, endoscopic variceal obturation with tissue adhesives is recommended.⁹ If obturation is not an option or fails, a transjugular intrahepatic portosystemic shunt procedure is recommended.

In our case, the spurting fundal variceal hemorrhage was terminated very rapidly, in only 18 seconds. This short bleeding time enables the endoscopist to observe the lesion in detail with a clean view and facilitates appropriate interventions.

At our institution, we also observed the immediate hemostatic effect of ABS on arterial bleeding after gastric polypectomy and spurting bleeding ulcers. Those cases did not respond to injection therapy or thermocoagulation. Our experience agrees with that reported previously by Kurt et al.⁵⁻⁷

To date, no significant side effects of ABS have been reported. We did not observe any side effects attributable to the ABS treatment in our patient. Further clinical observations and well-designed studies are required to validate the effectiveness of ABS in GI hemorrhage.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviation: ABS, Ankaferd Blood Stopper.

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