CASE REPORT

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The use of Ankaferd in diverticular bleeding: Two case reports

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Bleeding from colonic diverticula is the most common cause of acute lower gastrointestinal bleeding. Using epinephrine injection, heater probe or bipolar coagulation, endoclips and endoscopic band ligation all have been shown in small case series to achieve hemostasis. In the present two cases, we evaluated the effectiveness of Ankaferd Blood Stopper in colonic diverticular hemorrhage.

Key words: Diverticular bleeding, Ankaferd, hemostasis

Divertikül kanamasında Ankaferd kullanımı: İki olgu sunumu

Divertikül kanaması akut alt gastrointestinal sistem kanamalarının en sık nedenidir. Küçük hasta serilerilerinde epinefrin enjeksiyonu, heather prob veya bipolar koagülasyon, endoklips ve endoskopik bant ligasyonu ile kanamanın kontrol altına alındığı bildirilmiştir. Bizim iki olguluk serimizde ise Ankaferd Blood Stopper'in divertikül kanamasındaki etkinliği değerlendirilmiştir.

Anahtar kelimeler: Divertikül kanaması, Ankaferd, kanama kontrolü

INTRODUCTION

Bleeding from colonic diverticula is the most common cause of acute lower gastrointestinal bleeding, accounting for approximately 40% of cases (1). The use of epinephrine injection, heater probe or bipolar coagulation, endoclips and endoscopic band ligation (EBL) all have been shown in small case series to achieve hemostasis safely in patients with diverticular bleeding (2-5).

Ankaferd Blood Stopper (ABS) is a traditional medicine product that has been used for centuries in Anatolia as a hemostatic agent (6). ABS is standardized mixture of the plants Thymus vulgaris, Glycyrhiza glabra, Vitis vinifera, Alpinia officinarum, and Urtica dioica each of which has some effects on the endothelium, blood cells, angiogenesis, cellular proliferation, vascular dynamics, and/or cell mediators (6,7).

In the present two cases, we evaluated the effectiveness of ABS in colonic diverticular hemorrhage.

CASE REPORT

Case-1

A 85-year-old woman, who had renal hypertension, pulmonary hypertension, severe mitral and tricuspid valve regurgitation and was on warfarin therapy, presented to our emergency service with hematochezia. Her laboratory data included Hemoglobin level: 12,8 g/dL (normal range: 11,7-16,1 g/dl), white blood cell count: 6930/mm^3 (normal range 4.500-11.000/mm^3), platelet count: 249.000/mm^3 (normal range: 150.000-400.000/mm^3), and international normalized ratio value: 3,61. Colonoscopy was performed one day after stopping the warfarin treatment and giving two unit of fresh frozen plasma. Colonos-

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copy revealed diverticulosis from the sigmoid to the descending and ascending colon. After extensive washing and instillation of water in the general area of diverticulosis, a 6-mm diverticulum was visualized at the descending colon, with fresh blood trickling out; no visible vessel was seen (Figure 1). 2 ml of ABS was ejected to the diverticulum topically using a disposable sclerotheraphy injection needle that was passed through the instrument channel of the colonoscope. Bleeding stopped within few minutes after the application of ABS (Figure 2). No further bleeding and no adverse effects were noted throughout the hospital course or during the subsequent outpatient follow-up visits at 7th,30th and 60th days.

Case-2

A 67-year-old man visited our emergency department after he had hematochezia. His laboratory values were as follows: Hemoglobin: 10,8 g/dl (normal range: 12,6-17,4 g/dl), leukocyte count: 10.260/mm^3 (normal range: 4.500-11.000/mm^3), platelet count: 298.000/mm^3 (150.000-400.000/mm^3), and international normalized ratio of 1,13. Colonoscopy revealed multiple diverticulum on the sigmoid and descending colon and fresh blood within the colonic lumen. After extensive washing and instillation of water in the general area of diverticulosis, a 5-mm diverticulum was visualized at the distal descending colon, with fresh blood trickling out; no visible vessel was seen (Figure 3). 4 ml of ABS was ejected to the diverticulum topically using a disposable sclerotheraphy needle that was passed through the instrument channel of the colonoscope. Bleeding stopped within three minutes after the application of ABS (Figure 4). No further bleeding and no adverse effects were noted throughout the hospital course and during the subsequent outpatient follow-up visits at 7th, 30th and 60th days.

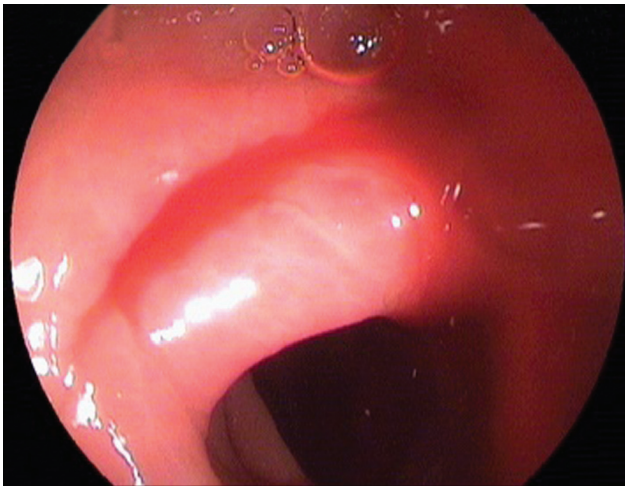

Figure 1. Bleeding as oozing from descending colon diverticula.

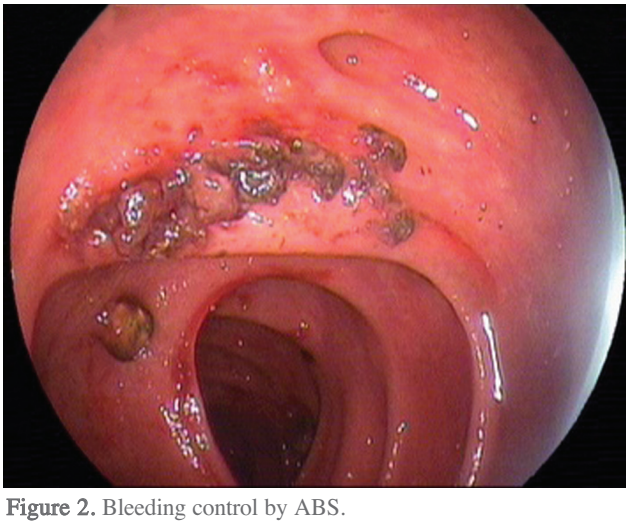

Figure 2. Bleeding control by ABS.

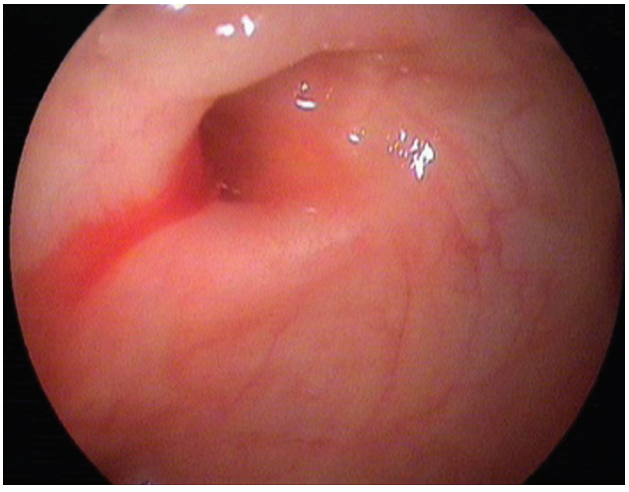

Figure 3. Bleeding as oozing from the distal part of descending colon diverticula.

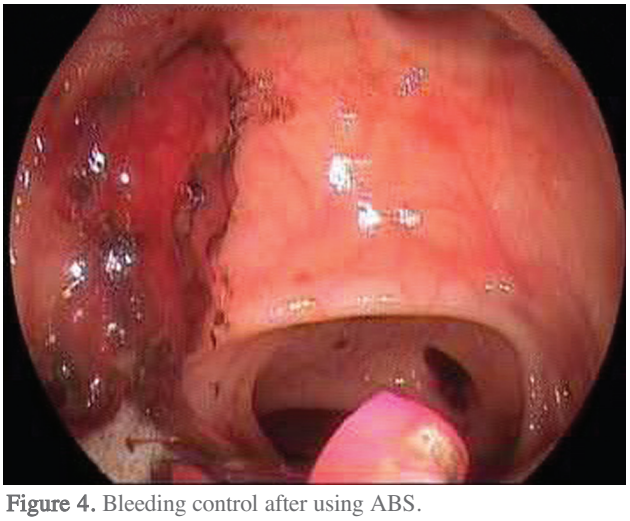

Figure 4. Bleeding control after using ABS.

DISCUSSION

The incidence of bleeding ranges from 5 to 50% in patients with diverticulosis (8, 9). Bleeding is arterial and can occur either at the dome or at the neck of the diverticulum. Clinical presentation generally is acute, painless hematochezia. Endoscopic treatments such as epinephrine injection, contact thermal therapy, endoscopic clipping, and band ligation have been well studied. But new treatments were needed because of difficulty of hemoclips placement, high risk of rebleeding after epinephrine injection, and probability of perforation during contact thermal therapy.

Endoscopic placement of hemoclips offers effective and fast control of bleeding, however, hemoclips placement is very difficult in small diverticula (10). Bloomfeld et al. reported on 13 patients who underwent epinephrine injection, cauterization, or both modalities for acute diverticular bleeding. They found that five patients rebleeded within one month, four of whom required surgery and three patients had late rebleeding (11). In the other manuscript about diverticular hemorrhage, EBL were used for treatment of diverticular bleeding (5). EBL seems safe and effective method, but using this method is not every time possible due to insufficient suction of the diverticulum.

ABS-induced formation of protein network with vital erythroid aggregation involves the entire physiological hemostatic process (6). ABS was effective in treating a lower gastrointestinal bleeding such us post-polypectomy bleeding, radiation colitis, solitary rectal ulcer, and neoplastic lower gastrointestinal bleeding (12). In the present two cases, we used ABS in bleeding diverticula and we could manage to stop the bleeding only in five minutes. This application is very easy, safe, and can be done in all kind of diverticula, so that the drug was poured on the surface of the diverticulum without connecting the surrounding tissue.

In conclusion, although only two patients underwent ABS application, we assume that ABS may be prefer whenever the use of other endoscopic treatment options are not possible.

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