

LETTER TO THE EDITOR

# Upper Gastrointestinal Bleeding in a Patient With Defective Hemostasis Successfully Treated with Ankaferd Blood Stopper

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**Acute gastrointestinal (GI) bleeding is one of the most frequent causes for hospitalization and responsible for a major cause of morbidity and mortality among patients. Ankaferd Blood Stopper (ABS) is a herbal extract attained from five different plants *Thymus vulgaris*, *Glycyrrhiza glabra*, *Vitis vinifera*, *Alpinia officinarum* and *Urtica dioica*. Here we report a challenging upper GI bleeding case with a low platelet count and defective hemostasis treated endoscopically with ABS as an adjunctive drug. Copyright © 2010 John Wiley & Sons, Ltd.**

*Keywords:* Ankaferd blood stopper; upper gastrointestinal bleeding; defective hemostasis.

## To The Editor

Acute gastrointestinal (GI) bleeding is one of the most frequent causes for hospitalization and is responsible for a major cause of morbidity and mortality among patients. However, the mortality rate remains unchanged in spite of various endoscopic and pharmacological modalities (Huang and Lichtenstein, 2003; Lim and Ahmed, 2004). Ankaferd blood stopper (ABS) is a herbal extract obtained from five different plants: *Thymus vulgaris*, *Glycyrrhiza glabra*, *Vitis vinifera*, *Alpinia officinarum* and *Urtica dioica* (Goker *et al.*, 2008). Increasing use of ABS in GI system bleedings (e.g. solitary rectal ulcer treatment, tumoral bleeding and serious arterial bleeding due to Dieulafoy's lesion of the digestive tract) adds to the growing evidence of data demonstrating the efficacy and tolerability of ABS in the GI system (Kurt *et al.*, 2008; Ibis *et al.*, 2008; Ozaslan *et al.*, 2009). Here we report a challenging upper GI bleeding case with a low platelet count and defective hemostasis treated endoscopically with ABS as an adjunctive drug.

A 43-year-old man who had Hodgkin's lymphoma was referred to our clinic with upper GI bleeding. On physical examination, he looked pale, temperature 38.5 °C, pulse rate 112 per minute, respiratory rate 16 per minute and recumbent blood pressure was 80/60 mmHg. A complete blood count revealed a hemoglobin level of 6.5 g/dL, and white blood cell and platelet counts of 600/μL and 14000/μL, respectively. Coagulation parameters revealed defective hemostasis with INR: 2.1, aPTT: 42.8 s. Although endoscopic intervention approaches for multiple foci of bleedings are still a matter of debate, it was decided to use ABS during the procedure for its ease of use and proven

clinical effectiveness. After obtaining informed consent from the patient's relatives due to the experimental nature of ABS, a total of 20 mL ABS solution was sprayed randomly, with a heater probe catheter onto the bleeding areas. This produced greyish-yellow discoloration and a coagulum throughout the lesion area and bleeding lessened within minutes. On the following day, 15 mL ABS solution was re-administered onto the oozing areas. His hemodynamic features were stable during follow-up and final endoscopy, 10 days later, disclosed some resolving petechiae in the clear stomach (Figure).

Ankaferd blood stopper has been used for the management of dermal, external post-surgical and post-dental surgery bleedings with the official permission of the Turkish Ministry of Health, since its exclusive hemostatic effect has been proved with many case reports (Kurt *et al.*, 2008; Ibis *et al.*, 2008; Ozaslan *et al.*, 2009) and animal studies (Cipil *et al.*, 2009) by endorsing the formation of a protein arrangement which creates a 'magnet' effect for vital physiological erythrocyte aggregation, wrapping the classical cascade model of the clotting system by simultaneously acting with the coagulation factors and platelets. Since ABS induced hemostasis mainly through erythrocytes, one may hypothesize that bleeding due to defective hemostasis such as low platelet count, warfarin overdose and chronic NSAID use could be controlled more efficiently with ABS. Moreover, the *in vivo* hemostatic effect of ABS in rats with defective hemostasis due to enoxaparin and aspirin administration has been studied and ABS was found to be effective in shortening the duration of bleeding and decreasing the amount of bleeding (Cipil *et al.*, 2009).

In this case, at the time of bleeding, the patient was being treated with chemotherapeutic agents which cause a low platelet count. Additionally, drug induced nephropathy, platelet dysfunction and prolonged prothrombin time due to neutropenic sepsis all contributed

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**Figure.** Fresh oozing bleeding in the proximal stomach (a). ABS spraying via heater probe catheter in a forward and retroflexed manner formed a yellowish plug throughout the bleeding areas (b). Erosions could be clarified after attaining hemostasis to the end of the procedure (c). Completely cleared stomach with few petechiae, 10 days later (d). This figure is available in colour online at <http://wileyonlinelibrary.com/journal/ptr>

to the poor prognosis of the patient. Although difficult cases such as these cannot be easily treated with conventional endoscopic approaches, ABS was used successfully as an ancillary and a time-saving option. When a patient suffers a defective hemostatic state, for example due to reversible iatrogenic causes, ABS may provide an emergency means for clinicians to reduce bleeding until hemostasis can be returned to normal (Kurt *et al* 2010). In this instance, ABS was applied to the patient twice, and helped the patient to survive a very difficult situation.

In conclusion, ABS has the potential to be a useful agent for treating gastrointestinal bleeding concomitant with defective hemostasis. It does not require prior experience in administration, and even if the endoscopist is unable to locate the exact site of bleeding, applying ABS in close proximity to the suspected bleeding area may be sufficient to stop bleeding.

#### Conflict of Interest

The authors have declared that there is no conflict of interest.

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