



**A new rescue therapy for bleeding gastric varices: Ankaferd
Blood Stopper**

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Review

A new rescue therapy for bleeding gastric varices: Ankaferd Blood Stopper

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Study Highlights: Ankafard Blood Stopper, gastric varices, rescue therapy, Histoacryl injection

Introduction

Ankaferd Blood Stopper (ABS) is a standardised herbal extract purified from five different plants *Thymus vulgaris*, *Glycyrrhiza glabra*, *Vitis vinifera*, *Alpinia officinarum* and *Urtica dioica* [1]. The use of topical ABS has been approved by the Turkish Ministry of Health for the treatment of dermal, external post-surgical and post-dental surgery bleedings. ABS has been shown to increase the formation of an encapsulated protein network which creates a core structure for erythrocyte aggregation, without an independent manner from coagulation factors and platelets. [1] The in vivo haemostatic effect of ABS was assessed in rats pretreated with acetylsalicylic acid or enoxaparine as well as in a swine model [2,3]

Data on the efficacy of ABS in GI (Gastro-Intestinal) system bleeding is limited to case reports. Here we present a case report to evaluate the haemostatic efficacy of ABS solution for bleeding due to gastric varices as a bridge therapy for more effective and definitive treatments.

Case Report

A 40 year-old woman who had cryptogenic cirrhosis was referred to our clinic with the upper GI bleeding. In upper endoscopy, massive bleeding in the stomach was noted but any bleeding origin could not be localised except a column of grade 1 non-bleeding esophageal varices. The presumed diagnosis was bleeding gastric varices. She got hemodynamically unstable to the end of the procedure. At that time, repeat the procedure via therapeutic endoscope aiming Histoacryl injection, Sangstaken-Blakemore tube, or conservative measures

were the options to bridge for a more definitive measure. We decided to use ABS empirically, after obtaining informed consent from her relatives due to the experimental nature of ABS, a total of 30 mL ABS solution was sprayed randomly, with a sclerotherapy needle onto the bleeding areas beginning from distal esophagus. This produced greyish-yellow discoloration and a massive coagulum throughout the stomach and bleeding stopped within seconds (Figure 1). Thereafter, large fundal varices and the bleeding site were clearly visualised . The patient was put on somatostatin and proper conservative therapy, not experienced further bleeding in following three days. The control endoscopy disclosed firmness of large fundal varices due to Histoacryl injection without any bleeding three days later. (Figure-2)

Discussion

Some endoscopic treatment modalities having been used with varying degree of efficacy including injections of sclerosant, absolute alcohol, fibrin glue, cyanoacrylate [4-13]. and variceal band ligation in the treatment of gastric varices[14] . Currently, endoscopic histoacryl injection after initial hemodynamic stabilization is the treatment of choice [15]. TIPS is advised to the patients in whom hemorrhage from gastric varices cannot be controlled or in whom bleeding recurs despite combined medical and endoscopic therapy. ABS use in gastrointestinal bleeding is limited to case reports and the specific use in gastric variceal bleeding has never been reported in the literature. However, successful reports of lesions including, Dieulafoy's lesion [16], solitary rectal ulcer [17] and gastrointestinal neoplasias [18] encourage us to search for efficacy in gastric variceal bleeding.

In our case, we use the described method as a temporary measure for more definitive treatments. When we take into account that limited treatment options for gastric variceal bleeding and inadequate availability, ABS administration might become very helpful tool with the ease of administration, not requiring much experience and non-toxicity. Even if the endoscopist couldn't locate the exact bleeding site, injecting ABS to the close proximity to the

suspected bleeding area may stop the bleeding immediately. Further studies are required to establish the usefulness of ABS in the therapy of gastric varices. Optimal dosing, dose interval, and comparison to other measures should be planned in those studies.

References

1. Goker H, Haznedaroglu IC, Ercetin S, et al. Haemostatic actions of the folkloric medicinal plant extract Ankaferd Blood Stopper. *J Int Med Res* 2008;36:163-170
2. Cipil HS, Kosar A, Kaya A, et al. In vivo hemostatic effect of the medicinal plant extract Ankaferd Blood Stopper in rats pretreated with warfarin. *Clin Appl Thromb Hemost* 2009;15:270-276
3. Bilgili H, Kosar A, Kurt M, et al. Hemostatic efficacy of Ankaferd Blood Stopper in a swine bleeding model. *Med Princ Pract* 2009;18:165-169
4. Sarin SK. Long-term follow-up of gastric variceal sclerotherapy: an eleven-year experience. *Gastrointest Endosc* 1997;46:8-14
5. Trudeau W, Prindiville T. Endoscopic injection sclerosis in bleeding gastric varices. *Gastrointest Endosc* 1986;32:264-268
6. Soehendra N, Nam VC, Grimm H, Kempeneers I. Endoscopic obliteration of large esophagogastric varices with bucrylate. *Endoscopy* 1986;18:25-26
7. Kind R, Guglielmi A, Rodella L, et al. Bucrylate treatment of bleeding gastric varices: 12 years' experience. *Endoscopy* 2000;32:512-519
8. Huang YH, Yeh HZ, Chen GH, et al. Endoscopic treatment of bleeding gastric varices by N-butyl-2-cyanoacrylate (Histoacryl) injection: long-term efficacy and safety. *Gastrointest Endosc* 2000;52:160-167

9. Lee YT, Chan FK, Ng EK, et al. EUS-guided injection of cyanoacrylate for bleeding gastric varices. *Gastrointest Endosc* 2000;52:168-174
10. Lo GH, Lai KH, Cheng JS, Chen MH, Chiang HT. A prospective, randomized trial of butyl cyanoacrylate injection versus band ligation in the management of bleeding gastric varices. *Hepatology* 2001;33:1060-1064
11. Sarin SK, Jain AK, Jain M, Gupta R. A randomized controlled trial of cyanoacrylate versus alcohol injection in patients with isolated fundic varices. *Am J Gastroenterol* 2002;97:1010-1015
12. Datta D, Vlavianos P, Alisa A, Westaby D. Use of fibrin glue (beriplast) in the management of bleeding gastric varices. *Endoscopy* 2003;35:675-678
13. Seewald S, Ang TL, Imazu H, et al. A standardized injection technique and regimen ensures success and safety of N-butyl-2-cyanoacrylate injection for the treatment of gastric fundal varices (with videos). *Gastrointest Endosc* 2008;68:447-454
14. Shiha G, El-Sayed SS. Gastric variceal ligation: a new technique. *Gastrointest Endosc* 1999;49:437-441
15. Hou MC, Lin HC, Lee HS, et al. A randomized trial of endoscopic cyanoacrylate injection for acute gastric variceal bleeding: 0.5 mL versus 1.0 mL. *Gastrointest Endosc* 2009
16. Kurt M, Kacar S, Onal IK, Akdogan M, Haznedaroglu IC. Ankaferd Blood Stopper as an effective adjunctive hemostatic agent for the management of life-threatening arterial bleeding of the digestive tract. *Endoscopy* 2008;40 Suppl 2:E262
17. Ibis M, Kurt M, Onal IK, Haznedaroglu IC. Successful management of bleeding due to solitary rectal ulcer via topical application of Ankaferd blood stopper. *J Altern Complement Med* 2008;14:1073-1074

18. Kurt M, Akdogan M, Onal IK, et al. Endoscopic topical application of Ankaferd Blood Stopper for neoplastic gastrointestinal bleeding: A retrospective analysis. *Dig Liver Dis* 2009

FIGURE LEGENDS

Figure 1. Bleeding stopped and greyish-yellow coagulum covered the diseased area within seconds after topical ABS application.

Figure 2. Final endoscopy shows large fundal varices and an ulcer located on a large varix



Bleeding stopped and greyish-yellow coagulum covered the diseased area within seconds after topical ABS application.
190x152mm (96 x 96 DPI)



Final endoscopy shows large fundal varices and an ulcer located on a large varix.
190x152mm (96 x 96 DPI)

view