A rare cause of massive lower gastrointestinal bleeding; jejunal dieulafoy's lesion

For the first time was defined by Dieulafoy in 1898, more than three cases of massive gastric hemorrhage, which is caused in a dilated submucosal artery (1). Dieulafoy's lesion, a rare cause of gastrointestinal bleeding is the submucosal arterial malformation (2). These lesions usually localized to the proximal of gastric lesser curvature, 6 cm away from the gastroesophageal junction in the stomach (1,3,4). However, the duodenum, jejunum and colon lesions have also been described (3,4). Dieulafoy's lesion is rarely seen in the small intestine (1). No relation with peptic ulcer disease, sudden onset of bleeding, the opening to the mucosal surface of submucosal artery with no reduction in the calibration and does not respond to conservative treatment can be listed as characteristic features of this lesion (2). Epinephrine (adrenaline) injection, hemoclips, thermocoagulation, band ligation, laserphotocoagulation are defined methods in treatment. However, prospective randomized controlled trials do not revealed method which is beter (4).

A twenty one-years old female patient with massive rectal bleeding was admitted to the emergency service. There was no history of drug use, alcohol consumption and smoking. Vital signs began to deteriorate after she applied the emergency service. The patient's blood pressure was 70/40 mmHg and pulse rate was 130 beats/min. Hemoglobin level decreased from 12 g/dL to 7 g/dL during a few hours. Despite intensive blood transfusion, hemoglobin level continued to decrease to 2.9 g/dL. Hypoxia had developed and mechanical ventilatory support was needed. There was no pathological findings in the esophagogastroduodenoscopy. Superior and inferior mesenteric angiography was performed. The active extravasation of jejunal artery end branches was revealed in the early arterial phase. Active bleeding was found in the second jejunal end branches of SMA demonstrated in Figure 1. These branches catheterized with micro-guide wire and embolized with 250 to 355 microns PVA (polyvinyl alcohol) particles demonstrated

in Figure 2. However no bleeding was shown with the control angiography, transfusion need was continued and she got worse clinically. She underwent emergen-

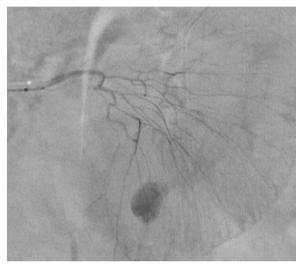


Figure 1. Superior and inferior mesenteric angiography before embolization.

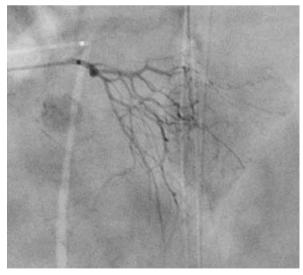


Figure 2. Superior and inferior mesenteric angiography after embolization.

Address for Correspondence: Bülent Çolak, Department of Gastroenterology, Gazi University Faculty of Medicine, Ankara, Turkey E-mail: colakb1976@yahoo.com

Received: January 08, 2013 **Accepted:** November 12, 2013

© Copyright 2014 by The Turkish Society of Gastroenterology • Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2014.4765



Figure 3. Intra-operative endoscopic image.

cy laparotomy. Enterotomy was performed in described lesion with angiography, approximately 40 cm distal to the ligament of Treitz. Lesion with arterial bleeding, protruding to the lumen with around the normal mucosa was observed with intra-operative endoscopy demonstrated in Figure 3 in approximately 30 cm distal to the ligament of Treitz. Segmental resection was performed from 2.5 cm proximal to 2.5 cm distal the lesion demonstrated in Figure 4. Blood transfusion need decreased. Significant improvement achieved in blood pressure and pulse. Patient was discharged with no post-operative complications. No symptom obtained follow-up period.

Early diagnosis and immediately therapeutic approach of life-threatening lower gastrointestinal bleeding with sudden clinical deterioration is very important. Dieulafoy's lesion is seen 75-95% in the stomach, lesser curvature. For the first time in 1944, similar lesion was shown in proximal jejunum in patient presenting with massive lower gastrointestinal bleeding. Bleeding was temporarily stopped with angiographic embolization, but then continued again. Subsequent laparotomy and enterotomy-guided intraoperative endoscopy



Figure 4. Segmental resection specimen.

underlined the importance of a multidisciplinary approach in diagnosis.

Conflict of Interest: No conflict of interest was declared by the authors.

Bülent Çolak, Harun Erdal, Mehmet Arhan, Mehmet İbiş, Selahattin Ünal Department of Gastroenterology, Gazi University Faculty of Medicine, Ankara, Turkey

REFERENCES

- 1. Wendell AG, David MC, Mohammad JK. Massive Lower Gastrointestinal Bleeding Due to 'Dieulafoy's vascular malformation' of the jejunum: Case Report. J Nat Med Assoc 1995; 87: 766-70.
- Kwi SL, Yoon JM, Sang IL, In SP, Seung KS, Jeong-Sik Y, Jeong HK. A Case of Bleeding from the Dieulafoy Lesion of the Jejunum. Yonsei Medical Journal 1997; 38: 240-4.
- 3. Blecker D, Bansal M, Zimmerman RL, et al. Dieulafoy's lesion of the small bowel causing massive gastrointestinal bleeding: Two case reports and literature review. Am J Gastroenterol 2001; 96: 902-5.
- 4. Cheng CL, Liu NJ, Lee CS, et al. Endoscopic management of dieulafoy lesions in acute nonvariceal upper gastrointestinal bleeding. Dig Dis Sci 2004; 49: 1139-44.