Successful Endoscopic Band Ligation of Duodenal Dieulafoy’s Lesion

Edson Guzmán1*, Pedro Montes2, Miguel Espinoza2 and Eduardo Monge2,4
1Gastroenterology Unit of Hospital Nacional Edgardo Rebagliati Martins, Peru
2Gastroenterology Unit of Hospital Daniel Alcides Carrion, Callao, Peru
3Universidad Peruana de Ciencias Aplicadas (UPC), Peru
4Universidad Peruana Cayetano Heredia, Peru

Abstract

Dieulafoy’s lesion (DL) is an abnormal arterial lesion in the digestive tract. We report a 21-year-old male, without any relevant past medical and familiar history. He admitted to the ER with a history of hematemesis and melena. An upper endoscopy showed a protruding vessel without surrounding venous dilatation, active bleeding or mucosal defect. This vascular lesion was located in the anterior wall of duodenal bulb. Endoscopic ligation subsequently performed with two bands and a successful haemostasis achieved.

Case Report

Dieulafoy’s lesion (DL) is an abnormal arterial lesion in the digestive tract [1]. These lesions account for up to 5% of acute upper gastrointestinal haemorrhages [2]. The stomach is the most frequently comprised, around 75% of all cases. The classic site is the proximal lesser curvature within 6 cm of the gastroesophageal junction and accounts for approximately 65% of the gastric lesions. The duodenum is the second most common site for DL and over half of the DL encountered in the duodenum occurs in the bulb [3].

We report a 21-year-old male, without any relevant his past medical and familiar history. He admitted to the ER with a three hours history of hematemesis and melena. His physical examination showed a heart rate of 89 bpm, blood pressure 110/60, no orthostatism, abdominal examination showed a non-distended abdomen with slight epigastric pain, and no organomegaly. The cardiovascular, respiratory and neurological examinations were unchanged.

The laboratory results showed: Hemoglobin: 11.1 gr/dl, WBC count: 8900 cells/mm³, platelets count: 235,000, LFTs: normal. Abdominal US and a plain abdominal X-ray were also normal. An upper endoscopy showed a protruding vessel without surrounding venous dilatation, active bleeding or mucosal defect. This vascular lesion was located in the anterior wall of duodenal bulb (Figure 1).

Endoscopic injection using 1:10,000 epinephrine solution was performed in four quadrants (2.5 ml in each quadrant), initially had not bleeding. The following day one proceeded to a review of the injected zone, observing active bleeding for which immediately it performed a mechanical therapy. Endoscopic ligation was subsequently performed with two bands and a successful haemostasis was achieved (Figure 2).

Two weeks later, it was possible to evaluate the aspect of the duodenal bulb with a suitable improvement.

Conclusion

Dieulafoy’s lesion is an uncommon, but potentially severe cause of gastrointestinal bleeding. It may found in any location within the gastrointestinal tract but is more frequent in the stomach; nevertheless, other regions have been considerate. Endoscopic therapy is effective and safe. Injected epinephrine alone is associated with a higher risk of rebleeding [4]. Whereas mechanical therapy is more effective with a recurrence of bleeding was significantly lower with banding or clipping (8.3%) than with injection method (33%) [5].

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*Corresponding author: Gerly Edson Guzmán Calderon, Prol. Manco II 115 - Condominio Villa Marina Club-Torre A Dpto 1101 San Miguel, Lima, Peru, E-mail: edson_guzman@hotmail.com

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