

Massive Gastrointestinal Bleeding Caused by a Jejunal Diverticula Multidisciplinary Approach

Elvira Vaillo Martin^{1*}, Laura Millán Paredes¹, Alberto Márquez Rodríguez², Aitor Costales Sánchez³, Juan de Diego Gamarra¹ and Andrea Rossetti¹

¹Surgery Department, Hospital Doctor Jose Molina Orosa, Lanzarote, Spain

²Gastroenterology Department, Hospital Doctor Jose Molina Orosa, Lanzarote, Spain

³Radiology Department, Hospital Doctor Jose Molina Orosa, Lanzarote, Spain

***Corresponding Author:** Elvira Vaillo Martin, Surgery Department, Hospital Doctor Jose Molina Orosa, Lanzarote, Spain.

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Abstract

Jejunal diverticula are rare, with a prevalence rate of 0.3 - 4.6% on autopsy studies and 0.5 - 2.3% on radiologic studies [1]. It is a clinically silent disease, but complications may include perforation, bleeding, diverticulitis, or intestinal obstruction.

We present the case of a 76 years-old man with arterial hypertension and chronic ischemic cardiopathy; admitted at our emergency department for a massive digestive bleeding. Endoscopies did not identify the source. AngioCT-scan identify an active bleeding at the level of jejunum. A laparotomy with intra-operative enteroscopy permit to identify the jejunal diverticulum as the source of bleeding and an intestinal resection was performed.

Massive gastrointestinal hemorrhage is a rare complication of a jejunal diverticulum, we show in this case report the diagnostic process and an the multidisciplinary management.

Keywords: Diverticula; Jejunum; Gastrointestinal Bleeding; Surgery; Enteroscopy

Introduction

Jejunal diverticula are infrequent, their prevalence in autopsy studies ranges between 0.3 - 4.6% and between 0.5 - 2.3% in radiological studies [1]. It is a silent clinical entity in most cases, however, complications as perforation, bleeding, diverticulitis and intestinal obstruction can be observed.

Current clinical guidelines recommended an capsule endoscopy, in subacute or chronic cases, to evaluate all the small intestine, after an endoscopic assessment of higher and lower digestive tract [2].

In one study, the capsule endoscopy has shown greater diagnostic capacity than the CT angiography despite this, the

capsule endoscopy failed in a small number of cases, that were diagnosed by CT angiography [3].

This suggests that combined use of capsule endoscopy and CT angiography may improve the diagnostic yield in patients with obscure GI bleeding.

Case Report

We present the case of an 76-years-old man with history of high blood pressure and ischemic heart disease. The patient was admitted at our emergency department for an episode of pre-syncope associated with melena. In the emergency room, an hemogram was performed, revealing a hemoglobin of 4 gr/dl.

After blood transfusion and hemodynamic stabilization, high and low endoscopy were performed, without identifying the etiology of the bleeding. Given the patient's stability, CT angiography was performed, and the active bleeding is observed at the level of a probable jejunal diverticulum (Figure 1).

Figure 1: Angio-CT scan showing the active bleeding in the diverticula.

The patient continues with anemization and melena, and we decided for urgent laparotomy with intra-operative enteroscopy. During the surgery, an intra-operative enteroscopy was performed allowing the exact identification of the bleeding sources (Figure 2), the procedure shows the jejunal diverticulum with a visible bleeding vessel (Figure 3). Resection and jejuno-jejunal anastomosis were performed.

The patient presented a favorable postoperative evolution, without requiring more blood transfusion, and was discharged at the 7th postoperative days.

Discussion

In general, the treatment of jejunal diverticulum bleeding is related to the identification of the etiology of the bleeding. Patients with chronic symptoms can be managed conservatively, if symptomatology persist despite treatment, surgery should be considered [2]. Thanks to the introduction of double-balloon enteroscopy, diverticular bleeding with a visible vessel can be controlled with clips [3-8] in less complicated cases.

Figure 2: Intra-operative enteroscopy with evidence of the pathologic diverticula.

Figure 3: Intra-operative enteroscopy showing the diverticula and the bleeding vessels.

Endoscopic band ligation has also been found to be safe and effective in achieving hemostasis of bleeding lesions in the small bowel.

Surgical management is reserved for patients with refractory GI bleeding and for complicated jejunal diverticula leading to bowel perforation, fistula, or abscess [9]. In the case of massive acute bleeding such as the presented case, the treatment of choice reported in literature is the surgical resection of the involved segment and primary anastomosis, key point is the identification with intra-operative enteroscopy of the bleeding diverticula [10].

Asymptomatic ileal or jejunal diverticulum do not require surgical treatment [11].

Conclusion

In conclusion, we want to emphasize the importance of a good diagnosis with CT angiography as well as multidisciplinary treatment of surgery combined with intra-operative enteroscopy.

Bibliography

1. Yan A., *et al.* "Massive obscure bleeding from a jejunal diverticulum (with video)". *Gastrointestinal Endoscopy* 81.5 (2015): 1289-1290.
2. Mantas D., *et al.* "Small intestine diverticula: Is there anything new?" *World Journal of Gastrointestinal Surgery* 3 (2011): 49-53.
3. Gerson LB., *et al.* "ACG Clinical Guideline: Diagnosis and management of small bowel bleeding". *The American Journal of Gastroenterology* 110.9 (2015): 1265-1287.
4. Saperas E., *et al.* "Capsule endoscopy versus computed tomographic or standard angiography for the diagnosis of obscure gastrointestinal bleeding". *The American Journal of Gastroenterology* 102.4 (2007): 731-737.
5. Hayashi Y., *et al.* "Non-steroidal anti-inflammatory drug-induced small bowel injuries identified by double-balloon endoscopy". *World Journal of Gastroenterology* 11.31 (2005): 4861-4864.
6. Srinivasan A and De Cruz P. "Review article: A practical approach to the clinical management of NSAID enteropathy". *Scandinavian Journal of Gastroenterology* 52.9 (2017): 941-947.
7. Curcio G., *et al.* "Massive bleeding from a jejunal diverticulum reached and treated by underwater single-balloon enteroscopy". *Gastrointestinal Endoscopy* 84.6 (2016): 1068-1069.
8. Fernandes C., *et al.* "Argon plasma coagulation of a bleeding angioectasia in a jejunal diverticulum by single-balloon enteroscopy". *Endoscopy* 47 (2015): E62.
9. Ikeya T., *et al.* "Endoscopic band ligation for bleeding lesions in the small bowel". *World Journal of Gastrointestinal Endoscopy* 6.10 (2014): 488-492.
10. Donald JW. "Major complications of small bowel diverticula". *Annals of Surgery* 190 (1979): 183-188.
11. Falidas E., *et al.* "Multiple giant diverticula of the jejunum causing intestinal obstruction: Report of a case and review of the literature". *World Journal of Emergency Surgery* 6 (2011): 1-9.

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