

EDITORIAL

Colonic diverticular bleeding. Have we identified the risk factors for massive bleeding yet?

As we know, the frequency of diverticular disease (DD) increases according to age, being less than 5% in patients under 40 years of age and up to 60% after 80 years of age (1,2). The most common distribution of diverticula is in the left colon, except for the Asian population, where diverticular disease of the right colon is more frequent (3).

The most frequent complication of DD is diverticulitis, and the second one is hemorrhage. Excluding ano-rectal diseases, hemorrhage secondary to DD is the second cause of bleeding of the lower gastrointestinal tract, but it is the main cause of massive bleeding up to 30 to 50% of cases. It is estimated that up to 15% of patients with DD in the colon will bleed at some point in their life, bleeding is usually painless and large, and is up to one-third of the cases massive and requires hospitalization and transfusion support (4).

The natural history of colonic diverticula hemorrhage indicates that it is stopped spontaneously in 70 to 80% of cases, so treatment should be directed to support management, in 20 to 30% of cases specific medical treatment through endoscopic management with any of the available modalities such as: epinephrine injection, thermal or mechanical methods such as endoscopic clip or ligature (5), and in very few cases a radiological or surgical treatment will be necessary.

Once the initial episode of bleeding stops, most patients will not recur, and only 30% will present a second bleeding episode (6) and in this rebleeding group the risk of a new bleeding episode is very high, so surgical treatment is recommended.

The risk factors involved in colonic diverticular bleeding include smoking, alcohol consumption, consumption of non-steroidal anti-inflammatory drugs (NSAIDs), antithrombotic drugs, bilateral presence of colonic DD and chronic degenerative diseases, such as hypertension, diabetes mellitus, ischemic heart disease and obesity. In addition, these same factors have been implicated in early rebleeding and massive hemorrhage, but there is no consensus about the importance of each one (7,8).

In his work Dr. Joaquim (9) did a retrospective analysis that included 74 patients where he and his group identified 4 independent risk factors for colonic diverticular hemorrhage, in addition these same factors were related to the presence of massive hemorrhage, these were: low hemoglobin at the moment of patient admission (≤ 11 g/dl), more than 75 years of age, bilateral localization of colonic diverticula and chronic kidney disease, with a recurrence rate of 12.8%, without being able to identify an independent risk factor for recurrence of bleeding. It is noteworthy that the use of aspirin and antithrombotic agents and/or atherosclerotic disease were not found as risk factors for diverticular hemorrhage, as described in most studies in the literature (8,10).

We will have to carry out prospective studies to determine the real value of all factors related to colonic diverticular bleeding, since this is a problem that we will increasingly have to face, considering that the prevalence increases with age and nowadays we have a greater life expectancy as demonstrated by the Kinjo et al. (10) in his retrospective study comparing 2 periods of time, the first from 1995 to 2006, and the second from 2007 to 2013, where he found an increased colonic diverticular bleeding from 5.9% to 23% and the factors that were most associated with this increase were: use of antithrombotic drugs and acetylsalicylic acid, male sex, age over 70 years, obesity, smoking, alcohol and atherosclerosis.

At present, we have generally identified the risk factors for colonic diverticular bleeding, but we do not know which one is the most important to be able to directly affect the care of patients who present this complication. Surprisingly despite the magnitude of the problem there are very few prospective studies that may help us understand this disease and therefore to offer better treatment to patients. It seems necessary to carry out new studies with a greater number of patients to identify which are the most important risk factors and to be able to identify which would be directly related to the most serious presentation of this complication.

Juan Manuel Blancas Valencia

*Department of Endoscopy. Hospital de Especialidades del Centro Médico Nacional Siglo XXI. IMSS (Instituto Mexicano del Seguro Social).
México DF, Mexico*

REFERENCES

1. Schauer PR, Ramos P, Ghiatas AA, et al. Virulent diverticular disease in young obese men. *Am J Surg* 1992;164:443-8. DOI: 10.1016/S0002-9610(05)81177-8
2. Konvolinka CW. Acute diverticulitis under age forty. *Am J Surg* 1994;167:562-5. DOI: 10.1016/0002-9610(94)90098-1

3. Lee YS. Diverticular disease of the large bowel in Singapore: an autopsy study. *Dis Colon Rectum* 1986;29:330-5. DOI: 10.1007/BF02554125
4. McGuire HH, Jr. Bleeding colonic diverticula: a reappraisal of natural history and management. *Ann Surg* 1994;220:653-6. DOI: 10.1097/00000658-199411000-00008
5. Early, D, Evans J, Fisher D. The role of endoscopy in the patient with lower GI bleeding. *Gastrointest Endosc* 2014;79:875-85. DOI: 10.1016/j.gie.2013.10.039
6. Gostout CJ, Wang KK, Ahlquist DA, et al. Acute gastrointestinal bleeding: experience of a specialized management team. *J Clin Gastroenterol* 1992;14:260-7. DOI: 10.1097/00004836-199204000-00014
7. Longstreth GF. Epidemiology and outcome of patients hospitalized with acute lower gastrointestinal hemorrhage: a population-based study. *Am J Gastroenterol* 1997;92:419-24.
8. Strate LL, Ayanian JZ, Kotler G, et al. Risk factors for mortality in lower intestinal bleeding. *Clin Gastroenterol Hepatol* 2008;6:1004-10. DOI: 10.1016/j.cgh.2008.03.021
9. Joaquim N, Caldeira P, Antunes A, et al. Risk factors for severity and recurrence of colonic diverticular bleeding. *Rev Esp Enferm Dig* 2017;109(1):3-9. DOI: 10.17235/reed.2016.4190/2015
10. Kinjo K, Matsui T, Hisabe T, et al. Increase in colonic diverticular hemorrhage and confounding factors. *World J Gastrointest Pharmacol and Ther* 2016;7:440-6. DOI: 10.4292/wjgpt.v7.i3.440