# **SAS Journal of Surgery**

Abbreviated Key Title: SAS J Surg ISSN 2454-5104 Journal homepage: <u>https://www.saspublishers.com</u>

#### **∂** OPEN ACCESS

Surgery

# **Cecal Angiodysplasia in Adults**

A. Mahmoud<sup>1\*</sup>, N. Tirizite<sup>1</sup>, Aelatraoui<sup>1</sup>, O. Berrada<sup>1</sup>, B. Chahid<sup>1</sup>, A. Hamri<sup>1</sup>, Y. Narjis<sup>1</sup>, R. Benelkhaiat<sup>1</sup>

<sup>1</sup>Department of Surgery, Ibn Tofail Hospital, Mohamed 6 University Hospital, Faculty of Medicine and Pharmacy, Cadi Ayad University, Marrakech 4000, Morocco

**DOI:** <u>10.36347/sasjs.2024.v10i01.002</u>

| **Received:** 28.11.2023 | **Accepted:** 01.01.2024 | **Published:** 04.01.2024

#### \*Corresponding author: A. Mahmoud

Department of Surgery, Ibn Tofail Hospital, Mohamed 6 University Hospital, Faculty of Medicine and Pharmacy, Cadi Ayad University, Marrakech 4000, Morocco

# Abstract Case Report

Digestive angiodysplasias are better known since the development of angiography and endoscopy. Their cause is poorly understood. Most are probably acquired and the consequence of age-related degenerative lesions. Bleeding linked to digestive angiodysplasia is often treated successfully by endoscopy or less frequently by hormonal therapy, the effectiveness of which is debated. Surgical resection has shown its effectiveness in significant hemorrhages. **Keywords:** Angiodysplasia, digestive vascular malformation, digestive hemorrhage.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## **INTRODUCTION**

Vascular malformations of the digestive tract were first mentioned in the literature in 1839; and it was in 1974 that the term intestinal angiodysplasia (AI) was defined as a superficial acquired vascular lesion, single or multiple, developed in the mucosa and/or submucosa of the wall of the digestive tract, without being associated to a cutaneous or visceral angiomatous lesion [1, 2]. Different equivalent terms may be encountered in the literature: "arteriovenous malformation", "telangiectasia", "vascular ectasia".

#### **OBSERVATION**

Patient aged 39, without specific ATCDS, followed in the gastroenterology department since 2015 for recurrent colonic angiodysplasia lesions with a negative etiological assessment (cases no aortic stenosis or Willebrand disease, renal failure). Revealed by

recurrent melena abdominal CT angiography revealing cecal angiodysplasia supplied by the caeco-appendicular artery Figure (1 and 2). Therapeutically, the patient benefited from 7 sessions of argon plasma coagulation, the last of which revealed, on endoscopic exploration, the presence in the cecum of several angiodysplasia lesions with signs of active bleeding.

The surgical decision was taken after the failure of endoscopic treatment (persistence of bleeding and the appearance of pneumoperitoneum). Surgical exploration was carried out using a conventional approach which did not reveal any hollow organ perforation, thinned appearance of the cecal wall and ascending colic without other associated anomalies. The procedure was a right hemicolectomy with end-to-end anastomosis.

The anatomo-pathological study of the part shows cecal angiodysplasia, the ileal and colonic resection limits are healthy.



Figure 1: Discreet thickening of the external wall of the cecum with dilation of the coeco-appendicular artery



Figure 2: Significant pneumoperitoneum associated with discreet peritoneal effusion

## DISCUSSION

Angiodysplasia is located in 80% of cases in the right colon and the cecum, in 15% of cases in the small intestine in the literature. Gastrointestinal bleeding is frequently observed in patients suffering from cardiovascular complications such as aortic stenosis.[3] and patients followed for Willebrand disease [4, 5], renal failure [6] in our case no aortic stenosis or Willebrand disease, renal failure. The investigations depend closely on the clinical presentation and the severity of the digestive bleeding. The development of endoscopy techniques and the quality of the video endoscopes used, particularly in terms of image resolution, make endoscopy the first avenue to follow for diagnosis. CT angiography and MRI angiography are two techniques that make it possible to diagnose digestive bleeding in a non-invasive way but without

and the between 7 and 15% with a median follow-up of 6 to 20 months [9, 10]. The complication rate ranges from 1.7% to 7%. Perforation is a rare (< 0.5%) but serious complication. The indications for surgical treatment of hemorrhagic IAs have become exceptional due to major advances in digestive endoscopy and interventional radiology. Surgery may be proposed when the following conditions are met: acute and significant digestive

therapeutic possibility and with a theoretical risk of

radiation for the scanner when it is repeated. In a recent

study of 26 patients with hemorrhagic IA of the colon,

the sensitivity, specificity and positive predictive value

were 70%, 100% and 100%, respectively [7]. Our patient

underwent abdominal CT angiography revealing

pneumoperitoneum with discreet peritoneal effusion

with cecal angiodysplasia supplied by the ceco-

appendicular artery. The rate of rebleeding after

treatment with CPA (argon plasma coagulation) is

© 2024 SAS Journal of Surgery | Published by SAS Publishers, India

6

bleeding, the source of which has been clearly identified, requiring a blood transfusion and after failure of noninvasive endoscopic and radiological techniques. Intraoperative endoscopy can help localize the source of acute bleeding or chronic bleeding; after failure of all other strategies [8], our patient underwent right hemi colectomy with end-to-end ileocolic anastomosis terminal.

### CONCLUSION

Intestinal angiodysplasia is the most common vascular malformation of the digestive tract. Diagnosis and treatment are essentially based on endoscopic techniques. However, the management strategy for the hemorrhagic form must also take into account drug treatments, interventional radiology techniques and, more rarely, surgical techniques.

#### REFERENCES

- Gordon, F. H., Watkinson, A., & Hodgson, H. (2001). Vascular malformations of the gastrointestinal tract. *Best Practice & Research Clinical Gastroenterology*, 15(1), 41-58.
- Athanasoulis, C. A., Galdabini, J. J., Waltman, A. C., Novelline, R. A., Greenfield, A. J., & Ezpeleta, M. L. (1978). Angiodysplasia of the colon: a cause of rectal bleeding. *Cardiovascular radiology*, *1*, 3-13.
- Shoenfeld, Y., Eldar, M., Bedazovsky, B., Levy, M. J., & Pinkhas, J. (1980). Aortic stenosis associated with gastrointestinal bleeding. A survey of 612 patients. *American Heart Journal*, 100(2), 179-182.
- Veyradier, A., Balian, A., Wolf, M., Giraud, V., Montembault, S., Obert, B., ... & Naveau, S. (2001). Abnormal von Willebrand factor in bleeding

angiodysplasias of the digestive tract. *Gastroenterology*, *120*(2), 346-353.

- Duray, P. H., Marcal Jr, J. M., Livolsi, V. A., Fisher, R., Scholhamer, C., & Brand, M. H. (1984). Gastrointestinal angiodysplasia: a possible component of von Willebrand's disease. *Human pathology*, 15(6), 539-544.
- Kringen, M. K., Narum, S., Lygren, I., Seljeflot, I., Sandset, P. M., Trøseid, A. M. S., ... & Holthe, M. R. (2011). Reduced platelet function and role of drugs in acute gastrointestinal bleeding. *Basic & Clinical Pharmacology & Toxicology*, 108(3), 194-201.
- Junquera, F., Quiroga, S., Saperas, E., Pérez-Lafuente, M., Videla, S., Alvarez-Castells, A., ... & Malagelada, J. R. (2000). Accuracy of helical computed tomographic angiography for the diagnosis of colonic angiodysplasia. *Gastroenterology*, 119(2), 293-299.
- Douard, R., Wind, P., Berger, A., Maniere, T., Landi, B., Cellier, C., & Cugnenc, P. H. (2009). Role of intraoperative enteroscopy in the management of obscure gastointestinal bleeding at the time of videocapsule endoscopy. *The American journal of surgery*, *198*(1), 6-11.
- Olmos, J. A., Marcolongo, M., Pogorelsky, V., Herrera, L., Tobal, F., & Dávolos, J. R. (2006). Long-term outcome of argon plasma ablation therapy for bleeding in 100 consecutive patients with colonic angiodysplasia. *Diseases of the colon* & rectum, 49, 1507-1516.
- Rolachon, A., Papillon, E., & Fournet, J. (2000). Is argon plasma coagulation an efficient treatment for digestive system vascular malformation and radiation proctitis?. *Gastroenterologie Clinique et Biologique*, 24(12), 1205-1210.