

# Massive lower gastrointestinal haemorrhage in a patient with colonic angiodysplasia. A case report

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## Citation

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## Abstract

An unusual case of colonic vascular anomaly consistent with angiodysplasia of the colon is presented. A 40-year-old female presented with bleeding per rectum for one month associated with generalized weakness and weight loss, and subsequently underwent right hemicolectomy. Post-resection angioradiography revealed the "coral reef" vascular anomaly consistent with angiodysplasia. Histology confirmed the presence of angiodysplasia.

## INTRODUCTION

Angiodysplasia of colon, also called vascular ectasia of the colon, colonic arteriovenous malformation or colonic angiomas, is a condition of stretched and fragile blood vessels in the colon that results in occasional loss of blood from the gastrointestinal (GI) tract. The condition is mostly related to the aging and degeneration of the blood vessels, and occurs in older adults. This condition is commonly seen in the older population and rarely a cause of blood loss in the young.<sup>1</sup> Angiodysplasia of the colon is not related to cancers or other disease of the blood vessels. It is different from diverticulosis, another very common cause of bleeding in older adults.<sup>1</sup>

The prevalence of angiodysplasia is 0.8% in healthy patients older than 50 years who are undergoing screening colonoscopy in the US population. Internationally, no widespread studies have been conducted to determine the incidence of angiodysplasia, but the incidence probably is similar to that in the United States.<sup>2</sup>

## CASE PROGRESSION

A 40-year-old female, normotensive and normoglycemic, presented to us with the complaints of off-and-on blood mixed with stools for one month along with fatigue and generalized weakness of the whole body. Blood in stools was red in color without any clots and not associated with straining at defecation. The patient did not complain of any change in the bowel habits, abdominal pain, vomiting or fever. There was also no history of any bleeding disorder. Reproductive history was not significant. No family history

of malignancy or any other bleeding disorder was reported.

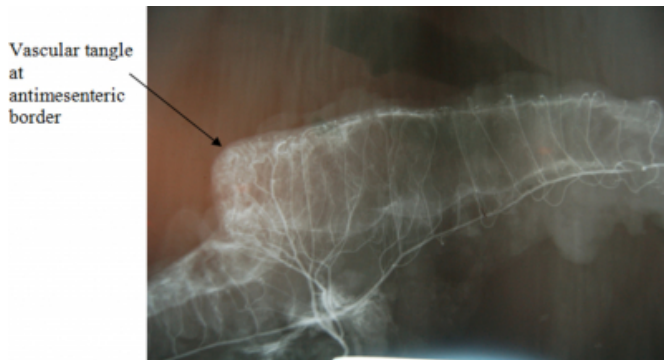
On general physical examination, the patient had pallor but no jaundice or enlarged lymph nodes. Abdominal examination was unremarkable, no viscera or mass palpable. On digital rectal examination, no abnormality was detected. Proctoscopy showed no mass, hemorrhoids or fissure in anal canal. Other systemic examination was also unremarkable.

Complete blood picture showed a haemoglobin level of 8g/dl. A peripheral blood film was ordered and showed microcytic hypochromic anemia. Colonoscopy showed multiple discrete raised lesions, 90cm from the anal verge which were occupying the entire circumference of the ascending colon. CT scan was unremarkable.

The patient was then prepared for right hemicolectomy with anastomosis of ileum with colon. After the operation, dye (urographin) was injected in the resected specimen and radiographs were taken which outlined increased vascularity in the classical manner on the antimesenteric border of the right colon and further proved our diagnosis (Fig. 1).

**Figure 1**

Figure 1: Vascular Pattern In The Hemicolectomy Specimen



The specimen was sent for histopathology which demonstrated clusters of dilated vessels, mostly veins, in the mucosa and submucosa of the cecum and ascending colon. Therefore, the patient was diagnosed to have angiodysplasia of the colon.

## DISCUSSION

Lower gastrointestinal bleeding is one-third to one-fifth as common as upper gastrointestinal bleeding and generally has a less severe course. Multiple causes have been described in the literature for lower gastrointestinal bleeding. As in upper gastrointestinal bleeding, lower gastrointestinal bleeding stops spontaneously in most cases (80-85%).<sup>3</sup>

One of the causes of lower GI bleeding, angiodysplasia, is an acquired vascular ectasia that is considered to be degenerative in origin, given its propensity to occur in the elderly. It is regarded as one of the important causes of occult gastrointestinal bleeding.<sup>4</sup> It is seen commonly amongst patients between the age of 60 and 80 years.<sup>5</sup> In our case, the patient was 40 years of age which is a young age of presentation for this disease.

The pathogenesis of angiodysplasia remains unclear, but a proposed cause is chronic, intermittent, low-grade obstruction of submucosal veins, leading to dilatation of mucosal capillaries. The lesions of angiodysplasia are usually small (2 to 5 mm in diameter) and can be single or multiple. These lesions can occur anywhere along the GI tract but are most commonly found in the proximal colon (approximately 80%), particularly the caecum. Angiodysplasia is an incidental finding at colonoscopy in 2% of non-bleeding patients older than 65 years. Fewer than 10% of patients with angiodysplasia will bleed. Bleeding stops spontaneously in the majority of patients, but rebleeding may occur.<sup>4</sup>

Lesions are usually located in the right colon and, although the pathophysiology is unknown, most are probably acquired as the result of a degenerative process associated with ageing. Diagnosis is usually made during colonoscopy, but angiography can be efficacious when hemorrhage is severe. Most patients with bleeding angiodysplasias are treated by endoscopy. Various methods have been used (monopolar electrocoagulation, injection therapy, contact probes, and lasers) with acceptable safety and success.<sup>5</sup> A conservative medical approach is indicated for many patients, while surgery constitutes definitive treatment in case of massive hemorrhage or recurrent bleeding.<sup>6</sup>

Surgical resection is the definitive treatment of angiodysplasia of the colon.<sup>6</sup> Right hemicolectomy for angiodysplasia is the second-line therapy after endoscopic ablation, if repeated endoscopic coagulation has failed, if endoscopic therapies are not available, and for life-threatening hemorrhage.<sup>2</sup> In one study, right hemicolectomy resulted in 63% of the subjects remaining free of intestinal bleeding (mean follow-up 3.6 yrs.), and 37% had some degree of recurrent bleeding.<sup>7</sup>

Cristin et al. report 7 cases of ileal and colonic angiodysplasia observed over a 3-year period (1992-1994).<sup>8</sup> After a review of the literature concerning etiology, pathology, diagnosis, and treatment, they emphasize the use of angiography for preoperative diagnosis and intraoperative localization of the lesion when it is localized in the ileum. After a review of useful therapies, they stress the role of surgery as the most used and only really complete therapy.<sup>8</sup> Surgical intervention is thus considered a reliable means of treating angiodysplasia.<sup>9</sup>

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