

# Angiodysplasia in a Child as a Cause of Lower GI Bleeding: Case Report and Literature Review

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## Abstract

Angiodysplasia or vascular ectasia of the colon is a rare but important cause of recurrent lower gastro-intestinal bleeding in children and should be kept in mind as a diagnostic possibility. This case reports of intermittent rectal bleeding with early presentation caused by angiodysplasia. Therefore, early diagnosis of this rare lesion is important to avoid a possible fatal outcome, and thus the pediatrician should be aware of this lesion as a rare cause of intestinal bleeding in children.

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## Introduction

Angiodysplasia or vascular ectasia of the colon is recognized as an important cause of lower gastro-intestinal bleeding in the elderly.<sup>1</sup> It usually involves the caecum and the right colon in adults.<sup>1</sup> Very few pediatric cases of angiodysplasia have been presented in the literature.<sup>2</sup> In this age group, the left hemicolon is more commonly affected. The age of the reported cases in children ranged from newborn to 15 years, males being affected more commonly.<sup>2</sup>

## Case Report

A 2 years and 9 months old Omani female, previously well and healthy, was presented with a history of recurrent bleeding per rectum from the age of 8 months. She passed little fresh blood mixed with stool intermittently. There was no history of constipation, abdominal pain, or other bleeding tendency. Clinically, the patient was healthy, not pale or jaundiced, no skin lesions and the abdomen was soft with no tenderness, masses or organomegaly. There were also no anal fissures or hemorrhoids, and the other systems were normal.

Initial investigations showed normal hemoglobin, LFT, coagulation and negative fecal occult blood (the child was free of rectal bleeding on this occasion). Colonoscopy showed small, few, non bleeding angiodysplasias localized in one area of the sigmoid colon (Fig. 1) and another big one was below them (Fig. 2), approximately 20 cm from the anal verge. No bleeding or other pathological lesions were observed. Bipolar Electro-Coagulation was applied to the lesions successfully. And the patient was free of lower gastro-intestinal bleeding for a few months post therapy.



Figure 1: Colonoscopy of Angiodysplasia in the Sigmoid colon

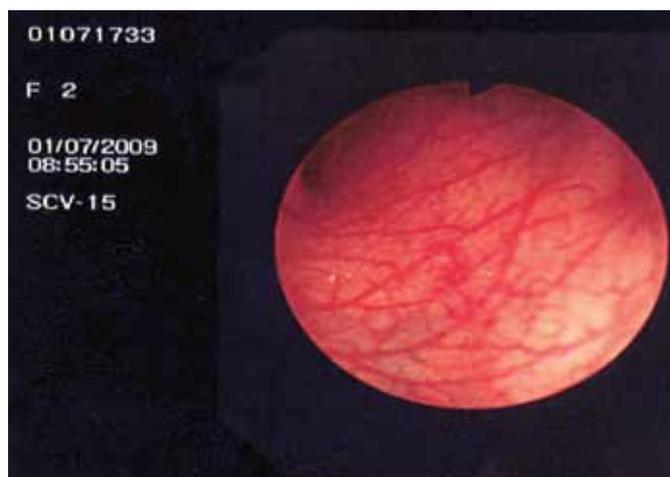


Figure 2: Colonoscopy of another Angiodysplasia in the Sigmoid colon

## Discussion

Diagnostic modalities employed in cases of angiodysplasia include colonoscopy, selective visceral angiography and operative angiography, with variable success rates. The most important investigation for the diagnosis of angiodysplasia is angiography or arteriography, which locates and delineates the lesion.<sup>1</sup>

Bipolar electrocoagulation and vasopressin infusion or gel foam embolization have been tried to control bleeding, however, late recurrence of bleeding may occur.<sup>3</sup> Surgical resection is the method of choice for multiple lesions with recurrent and severe bleeding.

The pathogenesis of angiodysplasia in adults is postulated to be the chronic partial intermittent obstruction of the submucosal veins due to chronic constipation, accounting for the right-sided predilection in the elderly.<sup>4</sup> However, the pathogenesis in children appears to be different considering the left-sided predominance of these lesions in children.<sup>2</sup> Since lesions such as anal fissure, necrotizing enterocolitis, intussusception, polyps and Meckel's diverticulum are more common, angiodysplasia is not considered as a cause of GI bleeding in children and a delay in diagnosis has been reported.<sup>2</sup> This delay may lead to a fatal outcome in children if the bleeding increases in severity.<sup>5</sup> In this reported case, the bleeding was mild and the lesions were small and localized, and were therefore managed using electrocoagulation.

## Conclusion

In conclusion, this report highlights that angiodysplasia is a rare but important cause of recurrent intestinal bleeding in children and should be kept in mind as a diagnostic possibility. Early diagnosis of this rare lesion is important to avoid a possible fatal outcome and thus the pediatrician should be aware of this lesion as a rare cause of intestinal bleeding in children.

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