KANSAS JOURNAL of MEDICINE

Case Report

Unveiling the Mystery: Correlating Physical Findings with Endoscopy to Diagnose an Uncommon Lesion

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Received July 15, 2023; Accepted for publication Dec. 18, 2023; Published online Dec. 31, 2023
https://doi.org/10.17161/kjm.vol16.21074

INTRODUCTION

Gastrointestinal (GI) bleeding poses a significant risk, even in the pediatric population, with potentially life threatening consequences.[1] This complication typically is categorized into three major forms, upper GI bleed, lower GI bleed, and bleeding of unknown origin.[1] Common causes of upper GI bleed in the pediatric population include esophagitis, ulcers, and esophageal varices, while lower GI bleeding is attributed to inflammatory bowel disease, colitis, and milk protein intolerance.[1] However, it is noteworthy that GI hemangiomas can present as an uncommon source of GI bleeding.[2] These benign vascular tumors may develop anywhere along the GI tract, with the highest incidence in the small intestines, followed by the colon and rectum.[2]

Patients with GI hemangiomas frequently exhibit GI bleeding, with symptoms such as melena and/or hematochezia. Depending on the location of the lesion in the GI tract, management may involve blood transfusion or surgical intervention. Due to its rarity, GI hemangioma is not typically considered a primary cause of GI bleeding in pediatric cases.[3] In this case report, we emphasize the significance of recognizing rectal hemangioma as a potential contributor to recurrent hematochezia, shedding light on this atypical cause of GI bleed in the pediatric population.

CASE REPORT

A 17-year-old female patient presented to the Emergency Department (ED) with bloody stools and was found to have a critical hemoglobin of 3.1 g/dL. She reported a long history of chronic intermittent blood in her stools, and had previously undergone a negative work-up, including a negative colonoscopy, esophagogastroduodenoscopy (EGD), and Meckel's scan at the age of three. The patient reported having worsening abdominal pain, vomiting, and multiple daily episodes of loose, bloody stools, along with a weight loss of 20 lbs. in the six months prior to her ED presentation. Her medications included a proton pump inhibitor and H2-blocker, which were started about one month before presentation, and a selective serotonin receptor inhibitor, which had been started about one week earlier. She was admitted to the hospital and received multiple packed red blood cell transfusions, which improved her hemoglobin to 7.3 g/dL, as well as iron dextran infusion. An abdominal X-ray showed moderate stool burden. The EGD and colonoscopy revealed gastritis and increased vascular markings in the sigmoid colon. A cutaneous lesion with bluish discoloration was found on the right buttock, raising concerns for a possible hemangioma. A Computed Tomography (CT) angiography of the abdomen and pelvis with delayed imaging was completed and showed no obvious abnormalities. The patient was then discharged home.

Multiple outpatient complete blood count tests were conducted, indicating an initial normalization of hemoglobin levels. Following this, she underwent a capsule endoscopy study and magnetic resonance imaging (MRI) of the abdomen and pelvis. However, these investigations did not identify a definitive source of bleeding, but raised concerns about the presence of hemangiomas in the right-sided and sigmoid colon. About four months later, the patient was readmitted to the hospital after she was found to have hemoglobin of 4.7 g/dL. A diagnostic laparotomy was performed, confirming the presence of a sigmoid hemangioma, as verified by histopathological examination (Figure 1). She subsequently underwent an elective, robotically assisted low anterior resection with splenic flexure mobilization, which was completed without complications.

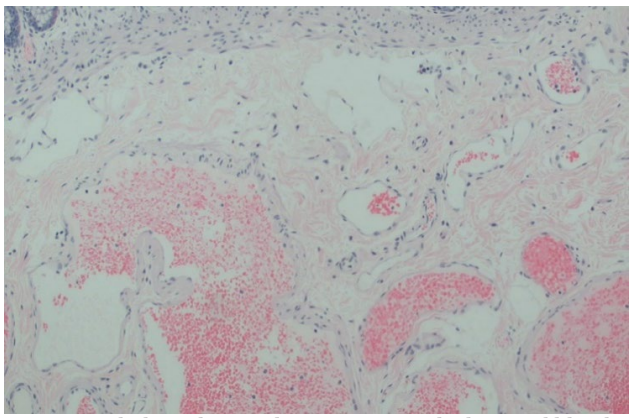

Figure 1. Histopathology showing hemangioma with abnormal blood vessels, endothelial cell proliferation, and lack of normal vessel architecture.

DISCUSSION

Gastrointestinal hemangiomas, characterized as relatively rare and benign vascular tumors, can manifest anywhere along the GI tract. with the colon and rectum being the most prevalent sites.[4] While the hallmark of GI hemangiomas often is GI bleeding, patients may present with a range of symptoms, including abdominal pain, dizziness, and generalized weakness. Histologically, GI hemangiomas are categorized into capillary, cavernous, and mixed types, with cavernous hemangioma being the most frequently observed. Solitary capillary hemangiomas, usually causing anemia through minor chronic bleeding, are common. Diagnostic tools encompass abdominal CT scans, MRI, ultrasound, and if small intestine bleeding is suspected, capsule endoscopy or nuclear medicine scintigraphy can be used. Expectant observation is typically advised for solitary, small GI hemangiomas with only mild symptoms. In cases requiring medical intervention, corticosteroids, which suppress the expression of the vascular endothelial growth factor and interferon alpha, may be employed.[5] Severe anemia and significant overt GI bleeding may necessitate transfusions. If medical management proves insufficient, surgical intervention becomes a consideration, contingent on the lesions' location.[6] The surgical technique ranges from wedge resection, antrectomy, subtotal gastrectomy or total

gastrectomy for gastric lesions, and segmental resection for small bowel lesions may require ileocecectomy, right hemicolectomy, left hemicolectomy, or segmental resection.[7] Lesions in the rectum may require a low anterior resection.[8]

This report outlines a case in which a patient presented with recurrent hematochezia, prompting an initial work-up for common causes; anal fissures, hemorrhoids, juvenile polyps, colitis, and proctitis were ruled out in the comprehensive initial assessment. A thorough physical examination revealed an incidental hemangioma on the buttock, broadening the differential diagnosis. Subsequent, diagnostic laparotomy identified a recto-sigmoid hemangioma, leading to low anterior resection.

We demonstrate the importance of performing a complete physical examination and broadening the differential diagnosis when common explanations have been excluded. We highlight an instance of rectal hemangioma leading to repeated occurrences of significant hematochezia and persistent anemia. A cutaneous hemangioma on the patient's buttocks broadened the potential diagnosis to include a GI hemangioma. While juvenile polyps represent the most common cause of lower GI bleeding in pediatric cases, it is crucial to consider GI hemangiomas, especially when previous endoscopic and imaging assessments have failed to reveal the cause of bleeding.

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Keywords: hemangioma, gastrointestinal bleeding, diagnostic laparotomy, histopathology, capsule endoscopy