

Lower Gastrointestinal Bleeding due to Multiple Polyps in Ileum

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ABSTRACT

The causes of lower gastrointestinal bleeding (hematochezia) are amyloidosis, anal fissure, angiodysplastic lesions, coagulation disorder, colitis, colon cancer, colorectal polyps, Crohn's disease, diverticulitis, haemorrhoids, etc.

This was a case of lower gastrointestinal bleeding due to colonic inflammatory polyp. This inflammatory polyps were caused by infection/inflammation and improved after antibiotic and NSAID therapy.

Key Words : Colonic inflammatory polyp, hematochezia.

INTRODUCTION

Bleeding from the gastrointestinal (GI) tract may present in five ways: hematemesis, hematochezia, melena, occult GI bleeding, and only symptoms of blood loss or anaemia. Hematochezia is the passage of bright red or maroon blood from the rectum.¹ Hematochezia usually indicates GI bleeding below the ligament of Treitz, but it may also accompany rapid haemorrhage of 1 L or more from the upper GI tract.²

Hematochezia ranges from formed, blood-streaked stools to liquid, bloody stool that may be bright red, dark mahogany, or maroon in colour. This sign usually develops abruptly and is heralded by abdominal pain.²

There are many medical causes of hematochezia, such as: amyloidosis, anal fissure, angiodysplastic lesions, coagulation disorder, colitis, ulcerative colitis, colon cancer, colorectal polyps, Crohn's disease, diverticulitis, dysentery, haemorrhoids, rectal melanoma (malignant), small-intestine tumours, typhoid fever, etc.^{1,2,3,4,5,6}

CASE ILLUSTRATION

A 19-year old male was admitted to Cipto Mangunkusumo hospital with a chief complaint bloody stool one day prior to hospitalisation.

Two months prior to hospitalisation the patient had diarrhoea with blood and mucous. The blood's colour was dark red. There was no history of fever or abdominal pain. The patient was brought to Ongkomulyo Hospital, but because there was no improvement of the symptoms of the disease, the patient was transferred to Cipto Mangunkusumo Hospital (RSCM). During hospitalisation in RSCM, the patient underwent colonoscopy examination, which found infective colitis. The symptoms then alleviated and the patient was released from the hospital.

At home there was no complain about defecation, but since he was suggested to eat soft food, he ate only soft food. And because he was afraid of having another bloody stool, he ate very carefully. Sometimes he even did not eat at all. He also lost his appetite and in the end his bodyweight dropped about 30 kilograms within two months.

One-day prior to hospitalisation, the patient had a bloody stool again. The colour was dark red, with black clot. There was no history of fever, but the patient had an abdominal pain in the epigastric and lower abdominal area. There was history of nausea, but there was no

vomiting. The patient went to RSCM again and was hospitalised in the Melati ward. During this time, he suffered from diarrhoea with blood and mucous for about eight times per day. The amount of the blood was about 100 cc each. He also had a slight fever, and was getting weaker.

The patient was a college student, who did not smoke or drink alcohol. He used to be obese. His weight prior to his illness was 100 kilograms.

Based on previous history, when the patient was in the first grade of elementary school, he was hospitalised because of dengue haemorrhagic fever, and was given blood transfusion because of low platelet count. The patient denied any history of diabetes mellitus, liver disease, or hepatitis.

Based on family history, his father had hypertension and had a stroke two years previously. The patient denied history of diabetes mellitus, cancer, colorectal cancer or any disease of the gastrointestinal system, and liver disease in the family.

Physical examination demonstrated a weak general condition but the patient was fully conscious. His blood pressure was 140/90 mmHg, his pulse rate 90 times per minute, respiratory rate 20 times per minute, body temperature 37.9 °C. His conjunctiva were pale, his sclera demonstrated no jaundice. His jugular venous pressure was 5-2 cm H₂O. The lungs and heart were normal. Abdominal examination revealed slight epigastric and lower abdominal pain, the liver and spleen was not palpable, and the bowel sound was normal. There was no oedema of the legs, the palmar erythema was not found. The digital rectal examination revealed dark red faeces on the hand glove.

Laboratory findings were as follows: haemoglobin level 14.4 g/dl, haematocrite level 41 vol%, erythrocyte count 4.9 million/ml, leukocyte count 16.700 per mm³, and platelet count 529.000 per mm³. Ureum level 27 mg/dl, creatinin level 0.6 mg/dl, and random blood sugar level 148 mg/dl. The patient's sodium level was 138 mEq/l, and his potassium level 4.3 mEq/l. Urinalysis revealed proteinuria, ketonuria, and bilirubinuria. Chest x-ray demonstrated a cardio-thoracic index of less than 50%, and there was no infiltrate. Electrocardiography demonstrated sinus rhythm, a QRS rate of 100 times per minute; while NA, ST changes, T inverted and U wave were not found.

Repeat colonoscopy was performed and resulting in multiple polyps on the ileal mucous. A sample of the polyps was then sent to Department of Pathology to be analyzed and show inflammatory polyps.

The result of ultrasound examination was chronic liver disease with a differential diagnosis of non-alcoholic steato-hepatitis, minimal ascites and slight enlargement of the spleen, and the laboratory results for the serologic viral hepatitis marker (B and C) were negative. The patient was then scheduled to have a liver biopsy. The result of the liver biopsy showed there is nothing contrary to non-alcoholic steato-hepatitis. So, the liver problem of this patient was a non-alcoholic steato-hepatitis.

DISCUSSION

The patient was a 19 year old male with the history of recurrent haematochezia. With a history of infective colitis two months prior to admission, haematochezia was first thought to have been caused by infective colitis, even though in infective colitis, such as amebiasis or shigellosis, the blood usually cannot be seen or there is usually only a little amount of it, and it rarely causes severe anaemia requiring blood transfusion.⁷

The recurrent hematochezia in this patient could have been caused by several problems, such as infection, especially with a prior history of infective colitis. Another causes, such as inflammatory bowel disease, haemorrhoid, tumour of the colon or small intestine, as well as diverticulosis were still possible.

Repeated colonoscopy was performed, resulting in hyperplastic polyps in the ileum, with a differential diagnosis submucosal tumour, Crohn's disease, and hyperplastic lymphoid follicle. The size of the polyps were smaller compared to those found in the second colonoscopy.

Since the mucosa was relatively normal, there was a possibility that the tumour was a submucosal tumour, and since the biopsy only took the surface of the polyps (the mucosal part), the condition beneath the mucosal part was undetected. It required further examination such as polypectomy, followed by a complete pathological examination, in order to examine the whole mass. Treatment should be considered according to the complete pathological finding.

Crohn's disease is also known to cause haematochezia, and this disease could attack the ileum. Since the aetiology of this disease remain unknown, the treatment is only based on theories such as reaction to a persistent intestinal infection, existence of a defective mucosal barrier to luminal antigens, and a dysregulated host immune response to ubiquitous antigens.⁸ The most common agent that was used for this disease is steroid,

such as prednisone and methyl prednisolone. Other agents such like methotrexate and growth hormone had went through several studies and was said to have some effects on this disease.^{9, 10}

Surgical therapy should be considered if there is a complication, or if there is no improvement after conservative therapy.^{3, 4} Since the third colonoscopy showed smaller size of the polyps, the most possible cause of these polyps was infection. The consideration was also based on a history of fever and the disappearance of haematochezia and other symptoms after administration of antibiotics. This consideration needs to be supported by further examination such as serial colonoscopy, where we can evaluate the size and condition of these polyps after administration of antibiotics.

Another problem in this patient was the abnormality in the liver function test, and an abnormal finding in the ultrasound test. Both chronic hepatitis and non-alcoholic steato-hepatitis were still possible in this patient, since there was history of blood transfusion to the patient used to be obese. Both problems were also two of many problems that could produced abnormalities in liver function test results in an asymptomatic person.¹¹ The negative serologic hepatitis viral marker reduced the possibility of chronic viral hepatitis in this patient.

Further examination such as liver biopsy was necessary, since one of the indications for liver biopsy is for the evaluation of abnormal results of biochemical liver tests in association with a negative or inconclusive serologic group¹², and the result of the biopsy revealed that the problem in this patient was non-alcoholic steato-hepatitis, that may have been related to the history of obesity in this patient.

Treatment usually involves weight reduction, and a literature said that the degree of fatty infiltration is usually reduced with weight loss in most patients, although the degree of necro-inflammation and fibrosis may worsen. The rate of weight loss is important and may have a critical role in determining whether liver histological findings will improve or worsen.¹³ Low cholinesterase and cholesterol levels in this patient may indicate a worsening process and the beginning of cirrhosis. It may have been caused by the rapid weight reduction in this patient.

No medication have been proved to directly reduce or reverse liver damage independently of weight loss, but such medication as Gemfibrozil, metformin, Vitamin E have been shown to improve liver test.¹³ One study also said that treatment with various antioxidant improves the fatty liver that develops in rats.¹³

This case is presented as a problematic case of a young patient with recurrent haematochezia, with some difficulties in making the diagnosis of this patient and making the decision of the best treatment to this patient considering the age, cost, and efficacy.

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