

Hematochezia in Patient with Colorectal Polyps

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ABSTRACTS

More than 95% colorectal cancers arise from neoplastic adenomatous polyps (adenomas). The malignant potential of polyps depends on size, amounts, histological type and degree of dysplasia. The prevalence of adenoma increases with age. Patient whose age more than 40 years old with rectal bleeding as presenting symptom should never be ascribed solely to coexisting haemorrhoids without a through evaluation of the colon and rectum.

We reported a case of hematochezia due to colorectal polyps with coexisting hemorrhoids as suspected bleeding source. Colonoscopy examination demonstrated colorectal adenomatous polyps in rectum and sigmoid. Polypectomy was done and tissue biopsy result was tubular adenoma with mild dysplasia.

Keywords: Adenomatous polyp, hematoschezia

INTRODUCTION

Colon Polyps

The term polyp refers to any tissue protrusion above the mucosal surface into the lumen. Polyps may take on various shapes and sizes from diminutive lesion to 20 cm in diameter.^{1,2-7} They were found mostly in sigmoid about 60% of cases.^{1,4}

Polypoid lesions of the large bowel may be classified into three main subgroups: the neoplastic polyps, which consist of adenomatous polyps (adenomas) and the carcinomas; non-neoplastic polyps; and submucosal lesions (which produce a polypoid appearance) as shown in table 1.

Adenoma had its role as malignant precursor of colorectal cancer.^{1,2-5} The malignant potential of an adenomatous polyp depends on its size, histologic type and degree of atypia.¹ Polyps larger than 1 cm, with a large villous histologic component or with severe dysplasia have an increased frequency of malignant

change within the polyp. Adenoma had been detected by colonoscopy in up to 75% patients with colorectal polyps. The prevalence of adenoma increased with age.^{1,4} Colonoscopic studies revealed various distribution of colorectal cancer throughout the colon. About 28% of polyps in rectosigmoid were malignant and only 5% were adenomatous polyps.⁸

Colorectal polyps were usually asymptomatic and frequently detected coincidentally on colonoscopy in patients with non specific abdominal complaints. Clinical manifestation might be hemorrhage (hematoschezia), alteration in defecation pattern, abdominal pain and rectal prolaps. These symptoms correlated with histological appearance, pathological conditions, and site of lesions.^{1,2,4,5} Adenomas tend to have minimal ulceration and have an intact luminal surface. Any bleeding that occurs is usually into the stroma. Thus, rectal bleeding tends to be intermittent and small in amount, only rarely resulting in anemia. Massive bleeding were often due to colorectal polyps

Table 1. Classification of Polyps

Neoplastic	Nonneoplastic	Submucosal Tumor
Pre-malignant (adenoma)	Mucosal	Lymphoid
Tubular	Hyperplastic	Pneumatosis Cystoides intestinalis
Tubulovillous	Inflammatory	Colitis Cystica profunda
Villous	Pseudopolyp	Lipoma
Malignant (carcinoma)	Hamartoma	Carcinoid
Non-invasive carcinoma	Juvenile	Metastatic lesion
Malignant polyp	Peutz-Jeghers	Leiomyoma
	Others	Hemangioma
		Fibroma
		Other

Source: Textbook of Gastroenterology, 2nd edition, vol. 2 editor Tadataka Yamada.

sized of more than 1.5 cm.¹ Constipation sometimes were found and caused by bulky polyps in distal colon. Clinical manifestation of diarrhea may occur in patients with large villous adenoma and frequently caused dehydration and electrolyte depletion. Diffuse, nonspecific abdominal pain had been sometimes attributed to intussusceptions, particularly of larger polyps.^{1,3} Colorectal polyps were difficult to be diagnosed merely based on physical examination. Intensive colorectal evaluation must be done in all patients whose age more than 40 years old with colorectal bleeding. Among suggested examinations are barium enema examination and colonoscopy.^{1,5,9-13}

All polyps practically are considered abnormal lesions and should be excised. Histopathologic type of polyp is not correlated to physical appearance. Polyp sizes more than 2 cm is usually adenoma and has potential to become malignant.^{1,2,4,5,11} Pedunculated polyp should be excised in toto,¹ while sessile polyp could be piecemeal removed. Sessile polyps size less than 1 cm and semi-sessile polyps can be removed by polypectomy.^{1,3,4,5,14} Complications that might occur during endoscopic treatment were perforation, hemorrhage, explosions and vaso-vagal reflects.¹⁻⁴ Further follow-up is strongly suggested in adenomatous polyps and carcinoma. Solitary adenoma should be followed up every year until polyp free condition for at least 3 years. Furthermore, examination should be continued every 3 years for solitary adenoma and every 2 years for multiple adenoma. Sessile adenoma should be checked for local recurrence after 6 months, 1 year and 2 years.^{1,3} Surgical treatment must be done in case of giant polyps, invasive carcinoma, large villous adenoma and sessile polyps that cannot be removed by polypectomy.^{1,3,4} Other references suggested having colonoscopy repeated in 3 years after polypectomy in high risk patients in developing advanced adenoma. For low risk patients who have one or two tubular adenoma sized less than 1 cm colonoscopy should

be repeated in 5 years.¹⁵

CASE ILLUSTRATION

Male patient, age 51 years old with chief complaint of bloody stool since 5 years before admission. Sometimes he had dark coloured stool and hematoschezia at the other time. There was no pain while defecation. There were no symptoms of abdominal pain, nausea or vomitus. He had not noticed any protrusion from anus during defecation. Sometimes he had self-limiting fever that lasted for 1 to 2 days. No difficulty in swallowing and no decreased appetite. He had seen doctors for his complaint and was given medication. He did not know what kind of medication he had got at that time and the symptoms would be healed for a while and recurred after he quit the treatment. He had also traditional Chinese medication for quite sometimes. Two weeks before admission he underwent colonoscopy at Charitas hospital in Palembang. He was told to had tumor in his colon and then being referred to Dr. Cipto Mangunkusumo General National Hospital because inadequate treatment facility in Palembang.

There were no history of asthma, hypertension, diabetes mellitus and jaundice in this patient. Neither the patient nor his family had symptoms of bloody stool.

When the patient came into emergency ward, his physical examination revealed moderately ill condition, blood pressure of 120/70 mmHg, a pulse rate of 100 times/minute, respiration rate 20 and no fever. The conjunctiva were not pale, sclera were not icteric. His heart and lung examination were normal. Abdominal examination found no sign of liver or spleen enlargement and no tenderness. Digital rectal examination (DRE) revealed normal anal sphincter tonus, no mass was palpable and no blood found.

Laboratory results were as follows: hemoglobin level 13.6 g/dL, hematocryt 38%, leucocytes 10,800/uL, platelet counts 207,000/uL, BUN 17 mg/dL, creatinin

level 1.0 mg/dL blood glucose level 99 mg/dL and electrolyte within normal limits (sodium 43 mEq/L, potassium 3.8 mEq/L and chloride 107 mEq/L).

Based on anamnesis, physical examinations and laboratory results, internal hemorrhoids was thought to be the cause of hematochezia in this patient with differential diagnosis of recto-sigmoid polyps. Serial peripheral blood examination and colonoscopy were planned and the patient was observed for further bleeding that might occur. Intravenous fluid drip of NaCl 0.9% was given 1,500 milliliters for 24 hours and he had softened food diet.

Colonoscopy demonstrated internal hemorrhoid grade II, semi-sessile polyp sized 8-10 mm in rectum. Pedunculated polyp sized 20 mm in diameter was found in sigmoid about 25 cm from anus with metaplasia observed in its mucosa. Other parts of colon and caecum were normal. He was planned to undergo polypectomy. Polypectomy were done on both polyps in rectum and sigmoid. Histopathologic examination on polyp tissue revealed tubular adenoma with mild dysplasia.

On the subsequent days after polypectomy the patient's condition was stable and no sign of peritonitis were found. He was given antibiotic therapy and analgetics. He was encouraged to continue softened food diet for few days at home. He was recommended to have diet containing about 30 grams of fiber per day, avoid spicy food and drink adequate amount of water.

DISCUSSION

Patient had complaint of bloody stool since 5 years before admission. Anorectal bleeding related to defecation should not be considered hemorrhoids as the sole source of bleeding. Other causes must be sought through examination by endoscopy to localize source of bleeding in colon and rectum. Differential diagnosis of hemorrhoids in this patient was colorectal polyps and malignant lesion. Malignancy still could not be ruled out considering patient's age and the fact that colorectal polyp always has malignant tendency.

Digital rectal examination (DRE), fecal occult blood examination (FOBT) and sigmoidoscopy found no mass or other abnormalities. In contrast, colonoscopy showed internal hemorrhoid, polyps in rectum and sigmoid. Biopsy result was tubular adenoma with mild dysplasia. Adenoma, unlike carcinoma, usually have minimal ulceration and stromal bleeding. Thus it rarely causes anemia. DRE, FOBT and sigmoidoscopy were considered more as screening tools. Main modality in

making diagnosis of polyps was tissue biopsy, because malignant lesion cannot be confirmed merely by physical appearance of the polyps.

There was no evidence of malignant process in this patient despite the size of polyps were large. Treatment of choice was polypectomy. Polypectomy was done on large sessile polyp sized more than 1.5 cm. On the subsequent days after polypectomy, there were no signs of complications such as recurrent anorectal bleeding or peritonitis. No interventional treatment done for hemorrhoids because it was asymptomatic. Follow up by colonoscopy can be repeated in 5 years because he was considered low risk patient.



Figure 1. Polypectomy on pedunculated polyp



Figure 2. Post-excisional polyp was removed using basket by endoscopy

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Figure 3. Histopathological examination showed tubular adenoma with mild dysplasia

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