



Open Access

Usefulness of Colonoscopy in Patients with Hematochezia Aged under 40 Years

Hee Chan Yang and Sang Wook Kim

Department of Internal Medicine, Jeonbuk National University Hospital, Jeonju, Korea

See “Endoscopic Findings in Patients under the Age of 40 Years with Hematochezia in Singapore” by Man Hon Tang, Fung Joon Foo, Chee Yung Ng, on page 466-470.

Hematochezia is also one of the most common presentations of colorectal cancer.¹ Colonoscopy is considered as the most effective modality to evaluate patients with suspected colorectal cancer. Generally, colonoscopy is indicated in patients presenting with hematochezia aged >50 years. On the other hand, most cases of hematochezia are related to benign anorectal diseases in patients aged less than 40 years. Therefore, sigmoidoscopy is usually performed to evaluate these patients. Although several recent studies have shown the efficacy of colonoscopy in patients aged <50 years,²⁻⁴ its role in patients aged <40 years is debatable. So far, few studies have evaluated the necessity of colonoscopy, or the sufficiency of sigmoidoscopy in patients with hematochezia aged under 40 years.⁴⁻⁸

Tang et al. report an analysis on colonoscopies performed in patients aged <40 years.⁹ This single-center retrospective study included rectal bleeding in 115 and 338 patients aged <30 and 30–39 years, respectively. The major cause of bleeding was hemorrhoids. Another result of the study was that 67 colonic polyps were detected in 63 patients. The polyps were hyperplastic polyps ($n=35$), tubuloadenomas with low-grade

dysplasia ($n=30$), advanced adenoma ($n=1$), and malignant polyp ($n=1$). Excluding hyperplastic polyps, the overall incidence of polyps was 6.5%. The incidence of polyps in the group aged 3,039 was significantly higher than that in the group aged <30 years (7.4% vs. 1.7%, $p=0.026$). While the majority of the polyps in both groups were detected in the distal colon, approximately a quarter of was proximally located in the group of aged 30–39 years.

The result of this study differed from that of previous studies, which concluded that colonoscopy in patients under 40 years of age was unnecessary due to relatively low rates of polyp detection. In this study, colonic polyps are more prevalent in patients aged 30–39 years than in those aged <30 years. Compared with the incidence of colonic neoplastic lesions in patients aged 40–50 years in previous studies (9.9%–17.9%),²⁻⁴ the occurrence rate of neoplastic lesions in patients aged 30–39 years (7.4%), in our study, is noteworthy. Also, a quarter of the polyps in patients aged 30–39 years were located in the proximal colon which was contrary to a previous study that reported that sigmoidoscopy was sufficient because most polyps were mainly found in the distal colon.⁸ It suggests that sigmoidoscopy may be insufficient for young patients aged 30–39 years according to this study's result.

This study had some limitations. First, it was a single-center, retrospective study and the sample size was relatively small. Second, in this study, most colonic polyps were asymptomatic and usually detected during screening tests. Colonic polyps that were incidentally detected during colonoscopy were unrelated to hematochezia. Therefore, recommending colonoscopy in young patients with hematochezia to detect polyp

Received: June 5, 2020 Revised: July 8, 2020

Accepted: July 9, 2020

Correspondence: Hee Chan Yang

Department of Internal Medicine, Jeonbuk National University Hospital, 20 Geonjiro, Deokjin-gu, Jeonju 54907, Korea

Tel: +82-63-250-1533, Fax: +82-63-254-1609, E-mail: yangh-c@hanmail.net

ORCID: <https://orcid.org/0000-0001-9847-5343>

© This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

is not based on the study result because we observed no direct relationship between colonic polyps and hematochezia. In addition, there was a case of a patient who suffered from colonic perforation. The colonoscopic-related complications such as perforation could be fatal. Considering the benefits and risks of colonoscopy in patients with hematochezia, it might be better to conduct sigmoidoscopy rather than colonoscopy to determine the cause of rectal bleeding in young patients.

A recently published study suggested that the incidence of colorectal cancer in young patients is increasing, and their characteristics tend to present with a higher pathologic grade, a greater incidence of recurrence, and metastatic disease.¹⁰ Therefore in developed countries such as Singapore and South Korea where hospitals that can offer colonoscopy to younger patients with hematochezia are easily accessible, the necessity of colonoscopy in patients aged of < 40 years having hematochezia should be considered. The detection and removal of polyps which are precursors to colorectal neoplasia is also meaningful in that group of patients.

Conflicts of Interest

The authors have no financial conflicts of interest.

Author Contributions

Writing-original draft: Hee Chan Yang
Writing-review&editing: Sang Wook Kim

ORCID

Sang Wook Kim: <https://orcid.org/0000-0001-8209-540X>

REFERENCES

1. Hsiang JC, Bai W, Lal D. Symptom presentations and other characteristics of colorectal cancer patients and the diagnostic performance of the Auckland Regional Grading Criteria for Suspected Colorectal Cancer in the South Auckland population. *N Z Med J* 2013;126:95-107.
2. Wong RF, Khosla R, Moore JH, Kuwada SK. Consider colonoscopy for young patients with hematochezia. *J Fam Pract* 2004;53:879-884.
3. Cha JM, Kozarek RA, La Selva D, et al. Findings of diagnostic colonoscopy in young adults versus findings of screening colonoscopy in patients aged 50 to 54 years: a comparative study stratified by symptom category. *Gastrointest Endosc* 2015;82:138-145.
4. Lewis JD, Shih CE, Blecker D. Endoscopy for hematochezia in patients under 50 years of age. *Dig Dis Sci* 2001;46:2660-2665.
5. Nikpour S, Ali Asgari A. Colonoscopic evaluation of minimal rectal bleeding in average-risk patients for colorectal cancer. *World J Gastroenterol* 2008;14:6536-6540.
6. Acosta JA, Fournier TK, Knutson CO, Ragland JJ. Colonoscopic evaluation of rectal bleeding in young adults. *Am Surg* 1994;60:903-906.
7. Spinzi G, Fante MD, Masci E, et al. Lack of colonic neoplastic lesions in patients under 50 yr of age with hematochezia: a multicenter prospective study. *Am J Gastroenterol* 2007;102:2011-2015.
8. Khalid AB, Majid S, Salih M, Hashmat F, Jafri W. Is full colonoscopic examination necessary in young patients with fresh bleeding per rectum? *Endoscopy* 2011;43:692-696.
9. Tang MH, Foo FJ, Ng CY. Endoscopic findings in patients under the age of 40 years with hematochezia in Singapore. *Clin Endosc* 2020;53:466-470.
10. Yeo H, Betel D, Abelson JS, Zheng XE, Yantiss R, Shah MA. Early-onset colorectal cancer is distinct from traditional colorectal cancer. *Clin Colorectal Cancer* 2017;16:293-299.e6.