

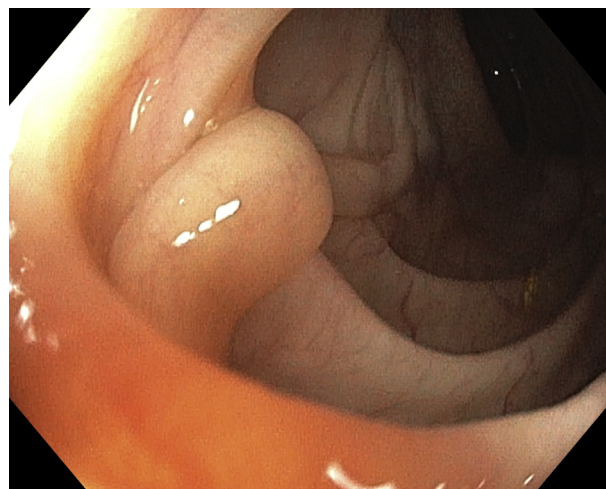
## Mucosubmucosal elongated colonic polyp

Jennifer L. Horsley-Silva, MD,<sup>1</sup> Dora M. Lam-Himlin, MD,<sup>2</sup> David E. Fleischer, MD<sup>1</sup>

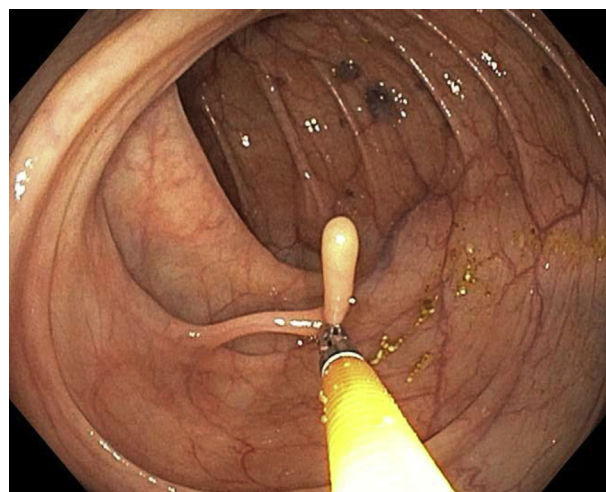
A 78-year-old man presented for elective outpatient colonoscopy at the recommendation of his primary care provider. He had a history of adenomatous colon polyps, with 2 tubular adenomas, 3-mm to 4-mm, found on prior colonoscopy 9 years previously, and was overdue for surveillance. He was otherwise asymptomatic, without change in bowel habits, weight loss, hematochezia, melena, iron-deficiency anemia, or abdominal pain. The patient's other medical history included right bundle branch block and palpitations, chronic cervicalgia, depression, erectile dysfunction, obstructive sleep apnea, and subacute cutaneous lupus erythematosus thought to be secondary to bupropion, which had resolved after discontinuation of the medication. The patient was taking a daily baby aspirin, multivitamin, and omega-3 fish oil and was using an ocular lubricant at the time of the procedure. He had no known allergies. There was no familial history of colorectal polyps or cancer.

Colonoscopy demonstrated nonthrombosed external hemorrhoids and a few small-mouthed and large-mouthed diverticula in the sigmoid and descending colon (Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). A 12-mm elongated, pedunculated polyp was found in the ascending colon (Figs. 1-3). A single-use ligating device (PolyLoop, Olympus Corporation, Tokyo, Japan) was maneuvered over the polyp stalk and was closed at the mucosal attachment base before removal to reduce the likelihood of postpolypectomy bleeding (Fig. 4). After the PolyLoop maneuver, the polyp was resected with a hot snare (Boston Scientific, El Coyal, Alajuela, Costa Rica) (Fig. 5), and retrieval was accomplished with a Roth Net (US Endoscopy, Mentor, Ohio) (Fig. 6).

Pathologic examination revealed a 12-mm elongated polyp with prominent submucosal elements, without features of dysplasia (Figs. 7 and 8). The findings were consistent with a colonic mucosubmucosal elongated polyp, a rare, distinctive, nonneoplastic, noninflammatory colorectal polyp. These polyps are elongated and pedunculated, sometimes referred to as having a "wormlike" appearance.<sup>1</sup> As the name implies, the defining histologic features include nondysplastic mucosa overlying an elongated core of submucosa, with loose collagenous stroma and sometimes containing dilated vessels and lymphatics. Adipose tissue or muscle layers are typically absent or at least not a dominant component.<sup>2</sup> These



**Figure 1.** A 12-mm elongated, pedunculated, "wormlike" polyp in the ascending colon.

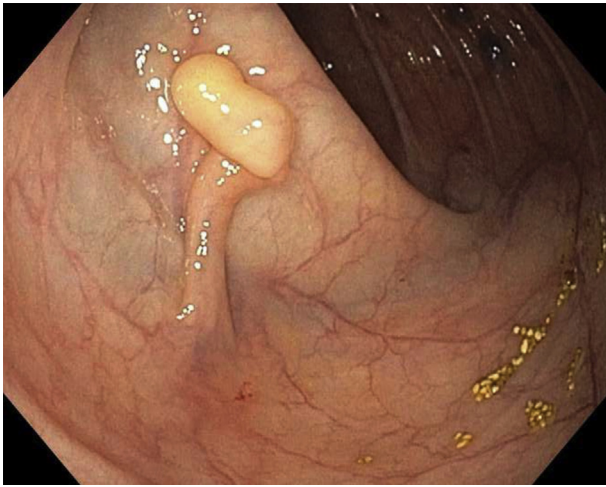


**Figure 2.** A 12-mm elongated, pedunculated, "wormlike" polyp in the ascending colon, lifted with biopsy forceps.

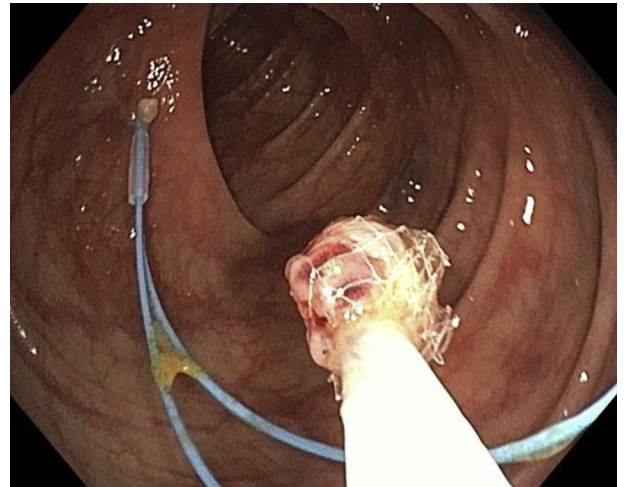
polyps have normal mucosa lining them without significant inflammatory components.<sup>1,3</sup>

The majority are found incidentally, most commonly in the large bowel.<sup>1,3</sup> Case series have found their sizes to range from 10 mm to 160 mm, with an elongated shape.

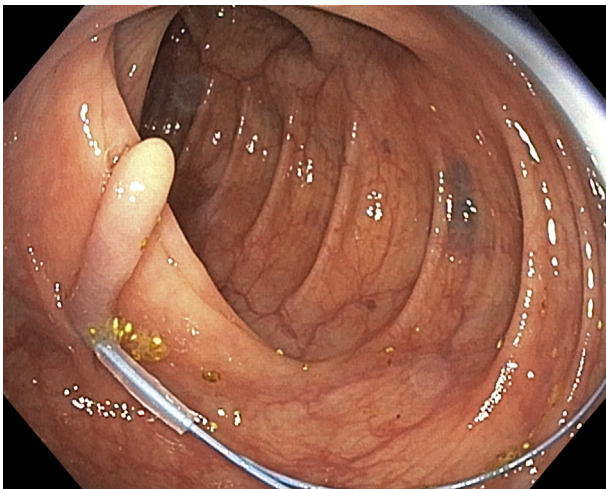
Written transcript of the video audio is available online at [www.VideoGIE.org](http://www.VideoGIE.org).



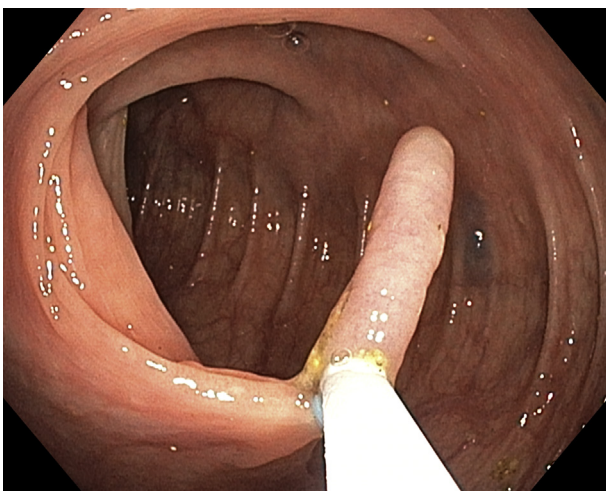
**Figure 3.** Another view of the 12-mm elongated, pedunculated, “worm-like” polyp in the ascending colon.



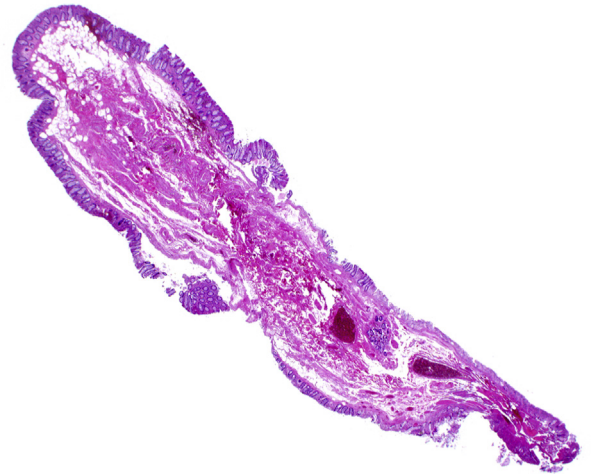
**Figure 6.** After resection, the polyp was retrieved with a 3-cm × 6-cm Roth net.



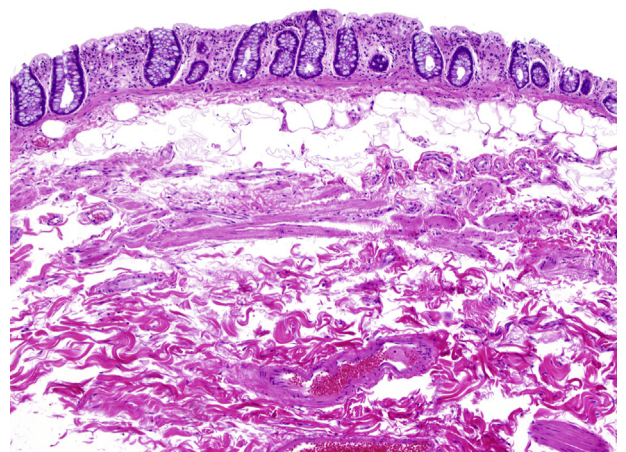
**Figure 4.** Endoloop maneuver performed over the polyp stalk and closed at the base.



**Figure 5.** Polyp resected with 13-mm hot snare distal to endoloop location.



**Figure 7.** Low magnification showing an elongated polyp lined by nondysplastic colonic mucosa with normal architecture (H&E, orig. mag. ×1.25).



**Figure 8.** Higher magnification showing the polyp stalk to be composed of submucosal elements such as adipocytes, connective tissue, and medium-sized muscular vessels. The muscularis mucosae is clearly visible at the base of the colonic crypts (H&E, orig. mag. ×10).



No correlation with sex, age, or subjective symptoms has been identified. The etiologic factors are uncertain, but they are benign and rarely cause any clinical concern.<sup>1,3</sup>

Endoloops (Endoloop, Olympus), or PolyLoops, are detachable ligating devices that are placed at the base of large polyps to prevent bleeding after removal of a lesion. The technique is similar to placing a tourniquet around the stalk of the polyp in such a fashion as to tamponade any vessels that may be present.<sup>4,5</sup> This technique may be used prophylactically during the removal of large, pedunculated polyps, and it has been demonstrated to reduce the rate of postpolypectomy bleeding.<sup>6,7</sup>

## DISCLOSURE

*All authors disclosed no financial relationships relevant to this publication.*

## REFERENCES

1. Tan CL, Tan SH, So JB, et al. Muco-submucosal elongated polyps of the gastrointestinal tract: a case series and a review of the literature. *World J Gastroenterol* 2013;19:1845-9.
2. Mataka H, Matsui T, Yao T, et al. Long pedunculated colonic polyp composed of mucosa and submucosa: proposal of a new entity, colonic muco-submucosal elongated polyp. *Dis Colon Rectum* 1998;41:1557-61.
3. Alizart MM, Rosty C, Brown IS. Colonic mucosubmucosal elongated polyp: a clinicopathologic study of 13 cases and review of the literature. *Am J Surg Pathol* 2011;35:1818-22.
4. Boujaoude J, Honein K, Hobeika E, et al. Endoscopic resection of large pedunculated colonic polyps using Endoloop. Three case reports and review of the literature [in French with English abstract]. *J Med Liban* 2006;54:221-4.
5. Rastogi SMAA. Endoloop-assisted polypectomy technique. *Video J Encyclopedia GI Endosc* 2012;13:323-4.
6. Di Giorgio P, De Luca L, Calcagno G, et al. Detachable snare versus epinephrine injection in the prevention of postpolypectomy bleeding: a randomized and controlled study. *Endoscopy* 2004;36:860-3.
7. Katsinelos P, Kountouras J, Paroutoglou G, et al. Endoloop-assisted polypectomy for large pedunculated colorectal polyps. *Surg Endosc* 2006;20:1257-61.

---

Division of Gastroenterology and Hepatology (1), Division of Anatomic Pathology, Department of Laboratory Medicine and Pathology (2), Mayo Clinic, Phoenix, Arizona, USA.

Copyright © 2017 American Society for Gastrointestinal Endoscopy. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<http://dx.doi.org/10.1016/j.vgje.2017.01.014>

---