

Pedunculated Duodenal Lipoma Treated with Endoscopic Polypectomy with a Detachable Snare

Murata, Atsuhiko

Department of Gastroenterology, Fukuoka Higashi Medical Center

Osoegawa, Takashi

Department of Gastroenterology, Fukuoka Higashi Medical Center

Ijyu, Moritomo

Department of Gastroenterology, Fukuoka Higashi Medical Center

Kanayama, Kenji

Department of Gastroenterology, Fukuoka Higashi Medical Center

他

<https://doi.org/10.15017/11893>

出版情報：福岡醫學雜誌. 99 (6), pp.131-135, 2008-06-25. 福岡医学会

バージョン：

権利関係：



Case Report

Pedunculated Duodenal Lipoma Treated with Endoscopic Polypectomy with a Detachable Snare

Atsuhiko MURATA¹⁾, Takashi OSOEGAWA¹⁾, Moritomo IJYU¹⁾, Kenji KANAYAMA¹⁾,
Munehiro TANAKA¹⁾ and Kazuhiko NAKAMURA²⁾

¹⁾Department of Gastroenterology, Fukuoka Higashi Medical Center, Koga,
Fukuoka, 811-3195, Japan

²⁾Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences,
Kyushu University, Fukuoka 812-8582, Japan

Abstract We report endoscopic polypectomy with a detachable snare in a patient with a hemorrhagic pedunculated duodenal lipoma. A 67-year-old man with a history of spinal canal stenosis was admitted to our hospital because of recurrent tarry stools and anemia. Esophagogastro-duodenoscopy revealed a pedunculated submucosal tumor measuring approximately 4 cm, in the second part of the duodenum. The tumor had a slightly yellowish coloration, and longitudinal erosion was noted on the surface of the tumor. There were no significant findings in the esophagus, stomach and bulbs. Barium study revealed a pedunculated submucosal tumor measuring 40 × 12 mm in the second portion of the duodenum. We judged that the submucosal tumor may have been the hemorrhagic source, and removed it by endoscopic snare polypectomy with a detachable snare. No complications occurred during endoscopic procedures. Histopathological examination revealed that the tumor was composed of mature adipose tissue in the submucosa, which was consistent with a diagnosis of lipoma. In our experience, endoscopic polypectomy with a detachable snare is useful for the treatment of hemorrhagic pedunculated duodenal lipoma.

Key words : pedunculated duodenal lipoma, endoscopic polypectomy, detachable snare

Introduction

Duodenal lipoma is relatively rare and generally located in the second portion of the duodenum¹⁾. Most cases are asymptomatic, with a small tumor size, and do not need any special treatment¹⁾. However, severe complications such as bleeding, intussusception and obstruction sometimes occur¹⁾²⁾. The treatment of symptomatic duodenal lipoma is usually surgical, such as duodenotomy and laparotomy¹⁾²⁾. However, minimally invasive endoscopic treatment may be applied to manage hemorrhage from duodenal

lipoma, following recent progress in endoscopic technology^{3)~5)}. The following report describes a patient with hemorrhagic pedunculated duodenal lipoma successfully treated with endoscopic polypectomy with a detachable snare.

Case Report

A 67-year-old man with a history of spinal canal stenosis was admitted to our hospital because of tarry stools and anemia. He had sinus tachycardia with hemoglobin of 107 g/L (10.7 g/dL) and a hematocrit of 32.3%. The platelet count and biochemistry results were all within normal limits. Esophagogastroduodenoscopy (EGD) revealed a pedunculated submucosal tumor, measuring approximately 4 cm, in the second part of the duodenum (Fig. 1a). The tumor had a slightly yellowish coloration, and longitudinal

Address for correspondence and reprints :
Atsuhiko Murata, M.D.
Department of Gastroenterology, Fukuoka Higashi Medical Center,
1-1-1, Chidori, Koga-city, Fukuoka 811-3195, Japan.
Tel. + 81-929-43-2331
Fax. + 81-929-43-8775
e-mail. murataa@fukuoka2.hosp.go.jp

erosion was noted on the surface of the tumor (Fig. 1b). Also, it was positive for a cushion sign. There were no significant findings in the esophagus, stomach and bulb. Barium study revealed a pedunculated submucosal tumor measuring 40×12 mm in the second portion of the duodenum (Fig. 2). We judged that the submucosal tumor may have been the hemorrhagic source, and removed it by endoscopic snare polypectomy with a detachable snare (Fig. 3). No complications occurred during endoscopic procedures. The resected specimen was covered by normal duodenal mucosa with longitudinal erosion. Histopathological examination revealed that the tumor was composed of mature adipose tissue in the submucosa, which was consistent with a diagnosis of lipoma (Fig. 4). There have been no further episodes of bleeding in the 10 months since this treatment.

Discussion

Lipoma is a benign, mesenchymal tumor that arises from the submucosa⁶⁾. In the gastrointestinal tract, the colon is the most common location of lipomas, but they are also found in the ileum, duodenum and jejunum, in decreasing order of frequency⁷⁾⁸⁾. In one series of 115,251 routine autopsies reported by Suire and Gousse⁹⁾, there were only 26 lipomas of the duodenum. There-

fore, duodenal lipoma is a rare tumor in the gastrointestinal tract.

Most cases of duodenal lipoma are asymptomatic, with a small tumor size, and do not need any special treatment¹⁾. However, severe complications such as bleeding, intussusception and obstruction occur in cases of duodenal lipoma greater than 4 cm in diameter¹⁾²⁾¹⁰⁾. Duodenal lipoma can cause bleeding, ranging from hypochromic microcystic anemia to massive upper gastrointestinal hemorrhage¹⁾. The overlying mucosa of the duodenal lipoma is usually normal, but there may be areas of ulceration or erosion⁴⁾. The mechanisms of erosion or ulceration are probably mucosal pressure atrophy or peristalsis that leads to elongating and stretching, with necrosis of the overlying epithelial layers¹⁰⁾. In our case, EGD revealed longitudinal erosion on the surface of the duodenal lipoma. Therefore, we judged that this lesion may have been the hemorrhagic source.

EGD is often performed for the diagnosis of duodenal lipoma. The endoscopic finding of lipoma is characterized by a smooth hemispherical lesion with a broad base¹⁾, but the shape of duodenal lipoma is variable and may become sessile or pedunculated²⁾. The treatment of symptomatic lipoma of gastrointestinal tract is usually surgical, such as duodenotomy and

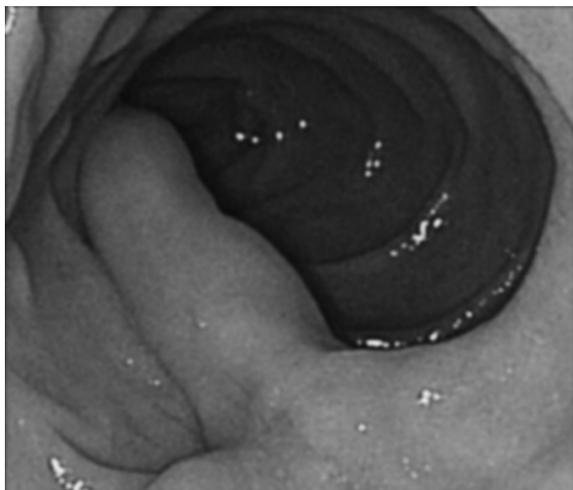


Fig. 1a Esophagogastroduodenoscopy (EGD) shows a pedunculated submucosal tumor at the second part of the duodenum.

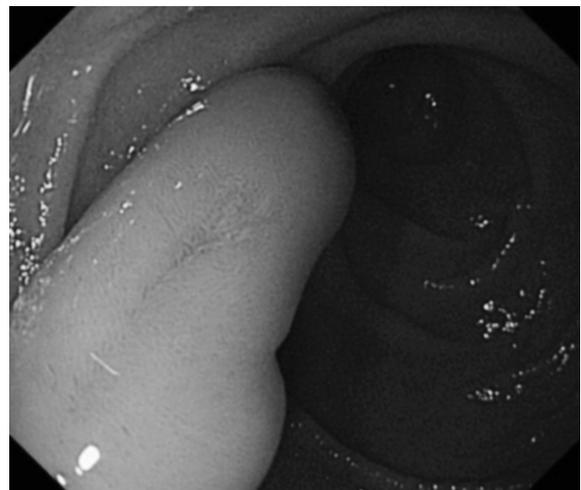


Fig. 1b EGD reveals longitudinal erosion was noted in the surface of the tumor.

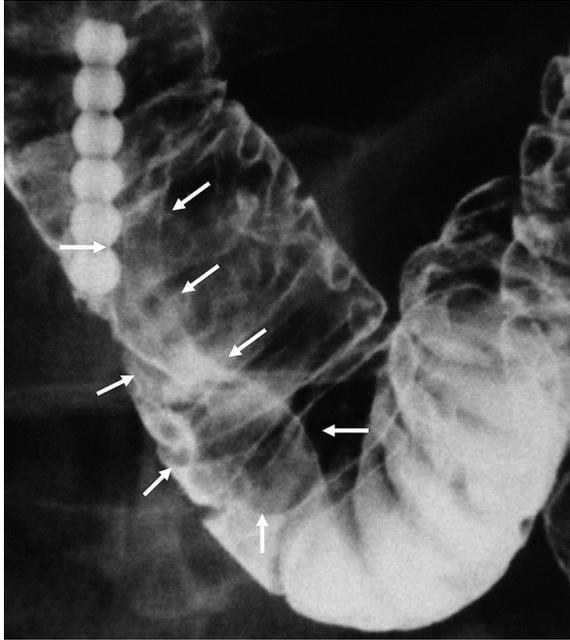


Fig. 2 Barium study shows a pedunculated submucosal tumor measuring 40 × 12mm at the second portion of the duodenum.

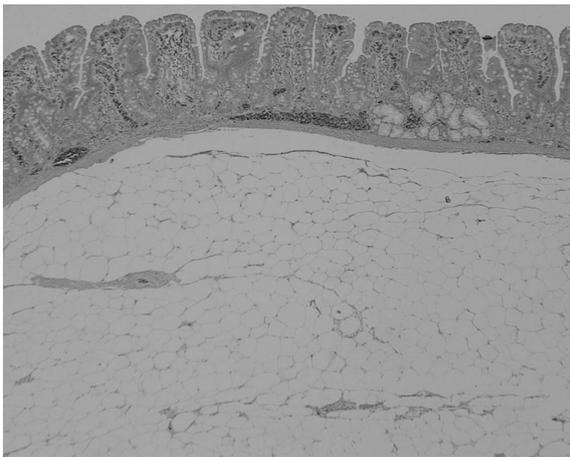


Fig. 4 Histopathological examination revealed the tumor that was composed of mature adipose tissue (H&E, orig.mag. × 10).

laparotomy¹⁾²⁾. Michel et al.¹⁰⁾ have reported that acute gastrointestinal hemorrhage was found in 5.5% of 218 cases of duodenal lipoma, all of which were subjected to laparotomy. However, duodenal lipoma is easily and safely removed endoscopically if it is pedunculated^{3)~5)}, whereas removing pedunculated colonic lipoma by snare polypectomy has a high incidence of perforation¹¹⁾. In our case, endoscopic polypectomy was easily performed. In addition, no complications occurred during endoscopic

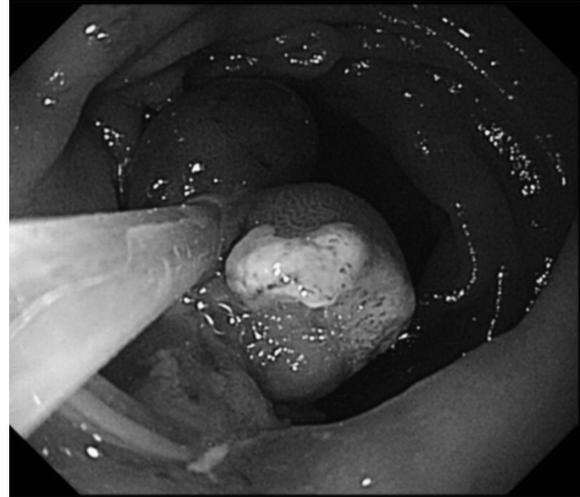


Fig. 3 Endoscopic snare polypectomy with detachable snare was performed for the removal of the pedunculated submucosal tumor.

procedures. However, polypectomy-related bleeding should be considered. Endoscopic polypectomy in the duodenum might be accompanied by a higher incidence of bleeding than colonic polypectomy as a result of the more vascular nature of the duodenum¹²⁾. Detachable snare seems to solve this problem. Detachable snare, also referred to as endoloop device, was initially designed for the endoscopic ligation of the base of an elevated lesion instead of surgical suture ligation. This snare surrounds the base of an elevated lesion with a specially manufactured nylon-thread loop, which is then tightened¹³⁾. Hachisu¹³⁾ have reported that detachable snare prevented postpolypectomy bleeding in 90.9% of patients with large polyps or other pedunculated elevated lesions. Ishii et al.¹⁴⁾ have reported that no bleeding occurred either during or after a polypectomy using a detachable snare for large pedunculated colorectal polyps, while bleeding occurred much more frequently without the use of such a snare. Some case reports have also shown that detachable snare was useful for the prevention of polypectomy-related bleeding¹⁵⁾¹⁶⁾. In our case, no bleeding occurred either during or after endoscopic procedures. We think that detachable snare can be safely and successfully used for the treatment of pedunculated duodenal lipoma. However, little information is available

with regard to the usefulness and safety of detachable snares for pedunculated duodenal lipoma, and further clinical studies are needed.

In conclusion, we demonstrated the case of pedunculated duodenal lipoma successfully treated with endoscopic polypectomy with a detachable snare. We believe that this technique can be safely and successfully used for the treatment of pedunculated duodenal lipoma.

References

- 1) Krachman MS, Dave PB and Gumaste VV. Bleeding duodenal lipoma. *J Clin Gastroenterol.* 5 : 180-181, 1992.
- 2) Jennings BS and Doerr RJ. Duodenal lipoma causing intussusception. *Surgery.* 105 : 560-563, 1989.
- 3) Hizawa K, Kawasaki M, Kouzaki T, Aoyagi K and Fujishima M. Unroofing technique for the endoscopic resection of a large duodenal lipoma. *Gastrointestinal Endosc.* 49 : 391-392, 1999.
- 4) Tung CF, Chow WK, Pend YC, Chen GH, Yang DY and Kwan PC. Bleeding duodenal lipoma successfully treated with endoscopic polypectomy. *Gastrointestinal Endosc.* 54 : 116-117, 2001.
- 5) Sou S, Nomura H, Takaki Y, Nagahama T, Matsubara F, Matsui T and Yao T. Hemorrhagic duodenal lipoma managed by endoscopic resection. *J Gastroenterol Hepatol.* 21 : 479-481, 2006.
- 6) Mayo CW, Pagatalunan RJG and Brown DJ. Lipoma of the alimentary tract. *Surgery.* 53 : 498-503, 1963.
- 7) Megibow AJ, Redmond PE, Bosniak MA and Horowitz L. Diagnosis of gastrointestinal lipomas by CT. *Am J Radiol.* 133 : 743-745, 1979.
- 8) Ketonen P, Virkkula L, Ketonen L and Mattila S. Recurrent small bowel obstruction caused by a benign tumor. *Acta Chir Scand.* 144 : 261-262, 1978.
- 9) Suire P and Gousse C. Le lipome duodenal. *J Chir.* 107 : 177-188, 1974.
- 10) Michel LA, Ballet T, Collard JM, Bradpiece HA and Haot J. Severe bleeding from submucosal lipoma of the duodenum. *J Clin Gastroenterol.* 10 : 541-545, 1988.
- 11) Pfeil SA, Weaver MG, Abdul-Karim FW and Yang P. Colonic lipomas : outcome of endoscopic removal. *Gastrointestinal Endosc.* 36 : 435-438, 1990.
- 12) Appel MF. Endoscopic removal of gastric and duodenal polyps. *South Med J.* 69 : 593, 1976.
- 13) Hachisu T. A new detachable snare for hemostasis in the removal of large polyps or other elevated lesions. *Surg Endosc.* 5 : 70-74, 1991.
- 14) Ishii H, Tatsuta M, Narahara H, Iseki K and Sakai N. Endoscopic resection of large pedunculated colorectal polyps using a detachable snare. *Gastrointestinal Endosc.* 44 : 594-597, 1996.
- 15) Kubokawa M, Hata J, Ochiai T, Araki Y, Ito K, Matsumoto M, Hamada S, Harada N, Nishi H, Tani K and Nawata H. Safe endoscopic resection using a detachable snare : large pedunculated Brunner's gland hyperplasia. *Dig Endosc.* 14 : 107-109, 2002.
- 16) Koo J and Kaffes A. Endoscopic resection of large colonic lipomas assisted by a prototype single-use endoloop device. *Endoscopy.* 38 : 644-647, 2006.

(Received for publication June 10, 2008)

(和文抄録)

留置スネアを併用し内視鏡下に切除しえた 有茎性十二指腸脂肪腫の1例

¹⁾独立行政法人国立病院機構福岡東医療センター 消化器内科

²⁾九州大学大学院医学研究院 病態制御内科学

村田篤彦¹⁾, 小副川 敬¹⁾, 伊集守知¹⁾, 金山兼司¹⁾,
田中宗浩¹⁾, 中村和彦²⁾

67歳の男性が黒色便を主訴に当院に紹介された。上部消化管内視鏡検査を施行し、十二指腸下行部に表面平滑で有茎性の粘膜下腫瘍を認めた。病変の色調はわずかに黄色調で、表面に縦走するびらんを認めた。低緊張性十二指腸造影検査では十二指腸下行部に透視上40×12mmの山田Ⅳ型の立ち上がり呈する表面平滑な隆起性病変として描出された。各種検査の結果、出血源と判断し、留置スネアを併用した内視鏡的切除術を施行した。内視鏡的切除に関し明らかな術中及び術後の合併症は認められなかった。術後病理組織学的検索では、粘膜下層において成熟した脂肪組織の増生を認め、十二指腸脂肪腫と診断された。有茎性の十二指腸脂肪腫に対し留置スネアを併用した内視鏡的切除術は有用と考えられた。