

Transsection by means of needle sphincterotome followed by the unroofing technique for endoscopic therapy of a large colonic lipoma

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Abstract. *Gastrointestinal lipomas are usually asymptomatic, detected incidentally. However they can cause severe symptoms such as obstruction, invagination, and bleeding. The case of an 86-year old man with infarcted large colonic lipoma is described. A transsection of the infarcted polyp by needle sphincterotome (needle knife) was done, followed by polypectomy of the upper part of the tumour. Cutting the lipoma body (unroofing technique) allowed flow out of adipose tissue from the lipoma. Rapid clinical improvement was achieved. No remnants of the lipoma were found on control endoscopy two months later.*

Key words: *Colonic lipoma, endoscopic treatment, needle sphincterotome.*

Bureš J, Rejchrt S, Kopáčová M. Endoskopická léčba objemného lipomu tlustého střeva pomocí incize jehlovým sfinkterotomem a snesení části lipomu polypektomickou kličkou (tzv. unroofing technique). Folia Gastroenterol Hepatol 2003; 1: 54 - 57.

Souhrn. *Lipomy gastrointestinálního traktu jsou zpravidla asymptomatické a obvykle jsou zjištěny náhodně. Mohou však způsobit i závažné příznaky, jako jsou obstrukce, invaginace nebo krvácení. V kasuistice je popsán případ 86-letého pacienta s objemným infarzovaným lipomem sigmatu. Při akutní endoskopii byla hlava infarzovaného polypu naříznuta jehlovým sfinkterotomem (jehlovým nožem) a poté byla polypektomickou kličkou snesena horní část polypu. Odříznutí vršku lipomu (tzv. unroofing technique) umožnilo spontánní odchod tukové tkáně z infarzovaného lipomu. Tím bylo dosaženo rychlého klinického zlepšení stavu nemocného. Při kontrolní koloskopii za dva měsíce již nebyly zjištěny žádné zbytky lipomu.*

Klíčová slova: *lipom tračníku, endoskopická léčba, jehlový sfinkterotom.*

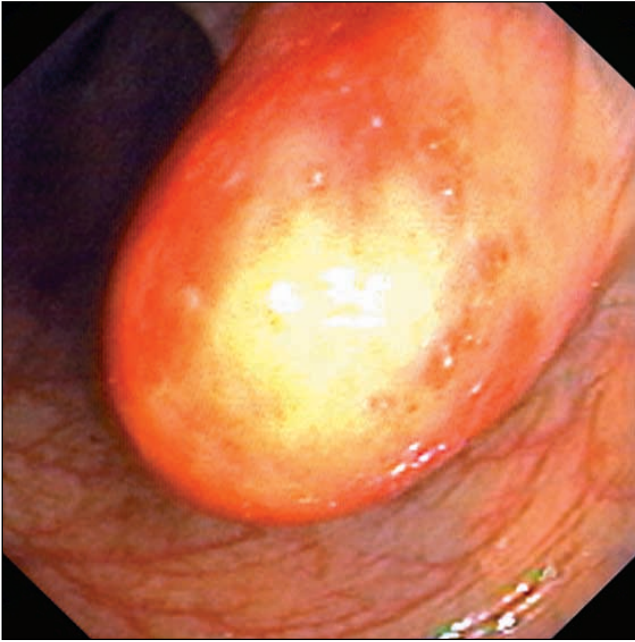


Fig. 1. Lipoma of sigmoid colon diagnosed previously (4 years before). Bright orange-yellow colour is characteristic. Size of this pedunculated polyp is about 3 to 2 cm. Multiple minute aphthous lesions (a pale target central area with a reddish halo) are seen on the lipoma surface due to orally administered sodium phosphate for colon cleansing before colonoscopy.

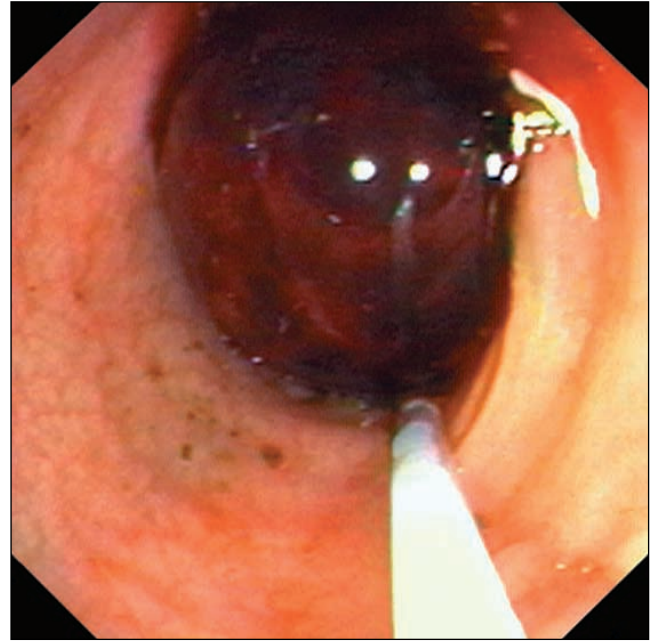


Fig. 2. Large infarcted lipoma of the sigmoid colon was found on acute colonoscopy. Its colour is dark purple and brown-red (with tiny islands of yellowish adipose tissue).

Gastrointestinal lipomas are rare, benign, usually single, slowly growing mesenchymal tumours, mostly found in the colon (65 %) and small bowel (20 %) (4, 6, 9, 16, 21). Lipomas tend to occur in older population sections and they are usually asymptomatic, detected incidentally (17,19). However, they can cause severe symptoms such as obstruction, invagination, and life-threatening bleeding (1, 2, 5, 7, 10, 11, 13, 24, 25).

We report the case of an 86-year-old patient with an infarcted large colonic lipoma who was presented with bowel obstruction and haematochezia.

CASE REPORT

An eighty-six-year-old man with previously (4 years earlier) diagnosed colonic lipoma (Fig. 1) was admitted to hospital because of acute onset of frequent watery diarrhoea (30 times a day), dehydration and normochromic normocytic anaemia (haemoglobin 100 g/L). No bacterial infection was found. Volume depletion was substituted with saline infusions and the patient was discharged three days later. After another two days he was admitted again because of acute bowel obstruction and haematochezia (with no further

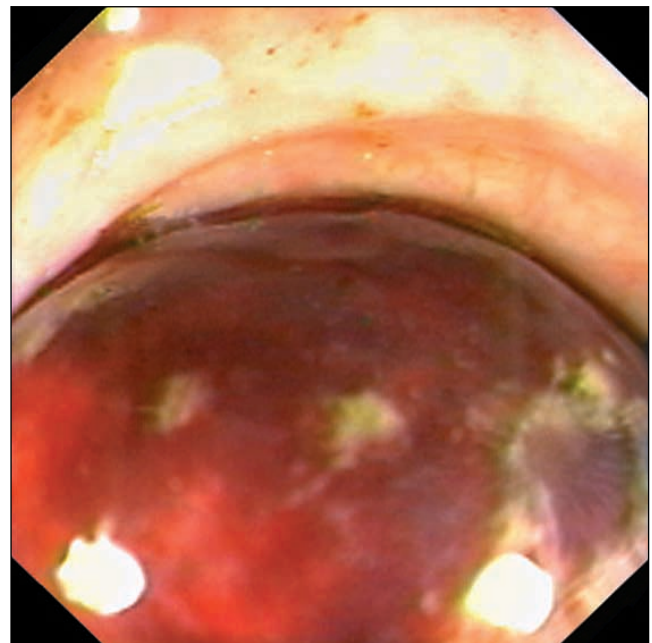


Fig. 3. The infarcted polyp completely obstructed the colonic lumen. The top of the polyp was very hard, its covering was glossy and slippery.

drop in red cell values). A large infarcted lipoma was found at sigmoid colon in acute colonoscopy (Fig. 2). The polyp completely obstructed the lumen of the colon (Fig. 3). Repeated trials to slip a polypectomy snare over the smooth and slippery surface of polyp failed. That is why incision of the visible part of the polyp was accomplished

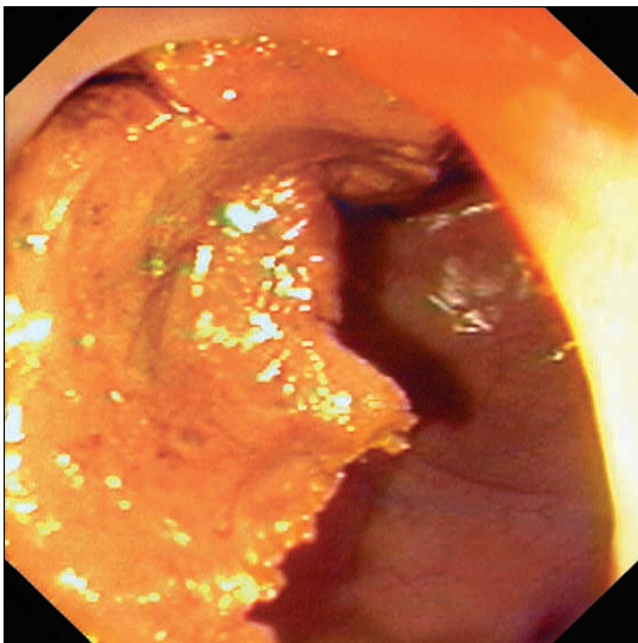


Fig. 4. The mostly evacuated lipoma was visible on control colonoscopy two weeks later. The base of the polyp is seen with remnants of adipose tissue.

by means of a needle sphincterotome. This transection made it possible to subsequently grasp the polyp by a snare and to cut off upper third of the tumour (unroofing technique). Histology confirmed lipoma. Mostly evacuated lipoma was visible on control colonoscopy two weeks later (Fig. 4). Rapid clinical improvement was achieved and the patient was discharged from hospital. No remnants of the lipoma were found in control colonoscopy after two months. The patient was symptom free during a subsequent three-year follow up.

DISCUSSION

Symptomatic gastrointestinal lipomas could be removed endoscopically by snare polypectomy (8, 15, 22, 23, 25). Preventive clipping of the stalk could reduce the risk of complications. Endoscopic polypectomy is considered to be possible in smaller size (less than 3 cm) and pedunculated lipomas (3,7). Larger lipomas are suggested for surgery because of the risk of complications after endoscopic polypectomy of submucosal tumours (perforation, bleeding) (7,12,14,19). Self-amputation of colonic lipoma is quite exceptional (20).

We describe the case of an 86-year-old man with an infarcted large colonic lipoma who was

presented with bowel obstruction and gastrointestinal bleeding. Acute infarction of colonic lipoma is quite rare and requires urgent therapeutic intervention (11). Our endoscopic treatment was successful, we performed transection of the infarcted polyp by needle sphincterotome (needle knife) followed by polypectomy of the upper part of the tumour. Cutting the lipoma body allowed flow out of adipose tissue from the lipoma. Rapid clinical improvement was achieved. No remnants of the lipoma were found at control endoscopy two months later. Hizawa et al (12) used the unroofing technique for the endoscopic resection of large lipoma, too. The unroofing technique was first reported by Mimura et al (18) for endoscopic resection of colonic lymphangioma. This technique only cuts off the upper half of the submucosal tumour, thus reducing the risk of complications. Hizawa et al (12) cut the upper third of large duodenal lipoma. This revealed a hole in the overlying mucosa (unroofing technique) and adipose material rapidly exuded from the cut surface through this opening.

Transection by means of needle sphincterotome is an optional and effective technique for endoscopic treatment of symptomatic gastrointestinal lipomas. Cut covering of lipoma is left in situ. This technique seems to be quite safe as the risk of perforation and/or bleeding is unlikely.

REFERENCES

- Alponat A, Kok KY, Goh PM, Ngoi SS: Intermittent subacute intestinal obstruction due to a giant lipoma of the colon: a case report. *Am Surg* 1996; 62: 918 - 921.
- Bahadursingh AM, Robbins PL, Longo WE: Giant submucosal sigmoid colon lipoma. *Am J Surg* 2003; 186: 81 - 82.
- Bar-Meir S, Halla A, Baratz M: Endoscopic removal of colonic lipoma. *Endoscopy* 1981; 13: 135 - 136.
- Bureš J, Rejchrt S et al: *Small Bowel Investigation & Atlas of Enteroscopy*. Praha: Grada Publishing, 2001: 480.
- Čársky K, Jenča G: Submukózný lipom hrubého čreva. *Rozhl Chir* 1966; 45: 90 - 92.
- Castro EB, Stearns MW: Lipoma of the large intestine: a review of 45 cases. *Dis Colon Rectum* 1972; 15: 441 - 444.
- Chung YF, Ho YH, Nyam DC, Leong AF, Seow-Choen F: Management of colonic lipomas. *Aust N Z J Surg* 1998; 68: 133 - 135.
- Creasy TS, Baker AR, Talbot IC, Veitch PS: Symptomatic submucosal lipoma of the large bowel. *Br J Surg* 1987; 74: 984 - 986.
- El-Khalil T, Mourad FH, Uthman S: Sigmoid lipoma mimicking carcinoma: case report with review of diagnosis and management. *Gastrointest Endosc* 2000; 51: 495 - 496.
- Felig DM: Bowel obstruction due to a large ileal lipoma. *Gastrointest Endosc* 2001; 53: 342.

11. Franc-Law JM, Begin LR, Vasilevsky CA, Gordon PH: The dramatic presentation of colonic lipomata: report of two cases and review of the literature. *Am Surg* 2001; 67: 491 - 494.
12. Hizawa K, Kawasaki M, Kouzuki T, Aoyagi K, Fujishima M: Unroofing technique for the endoscopic resection of a large duodenal Lipoma. *Gastrointest Endosc* 1999; 49: 391 - 392
13. Key JC, Roberts JW: Massive bleeding from colonic lipoma. *Arch Surg* 1980; 115: 889 - 890.
14. Khawaja FI: Pedunculated lipoma of the colon: risks of endoscopic removal. *South Med J* 1987; 80: 1176 - 1179.
15. Kitamura K, Kitagawa S, Mori M, Haraguchi Y: Endoscopic correction of intussusception and removal of a colonic lipoma. *Gastrointest Endosc* 1990; 36: 509 - 511.
16. Lyburn ID, Torreggiani WC, Thomson WH, Shepherd NA, Wallace D, Birch P: Giant lipoma of the descending colon. *Hosp Med* 2002; 63: 500 - 501.
17. McGrew W, Dunn GD: Colonic lipomas: clinical significance and management. *South Med J* 1985; 78: 877 - 879.
18. Miura T, Kuramoto S, Hashimoto M, Yamasaki K, Kobayashi K, Kobayashi M, Oohara T: Unroofing for lymphangioma of the large intestine: a new approach to endoscopic treatment. *Gastrointest Endosc* 1997; 46: 259 - 263.
19. Pfeil SA, Weaver MG, Abdul-Karim FW, Yang P: Colonic lipomas: outcome of endoscopic removal. *Gastrointest Endosc* 1990; 36: 435 - 438.
20. Radhi JM: Lipoma of the colon: self amputation. *Am J Gastroenterol* 1993; 88: 1981 - 1982.
21. Rogy MA, Mirza D, Berlakovich G, Winkelbauer F, Rauhs R: Submucous large-bowel lipomas - presentation and management. An 18-year study. *Eur J Surg* 1991; 157: 51 - 55.
22. Shapiro PD, Michas CA: Endoscopic removal of submucosal colonic lipomas. *Arch Surg* 1976; 111: 89.
23. Stone C, Weber HC: Endoscopic removal of colonic lipomas. *Am J Gastroenterol* 2001; 96: 1295 - 1297.
24. Taylor BA, Wolff BG: Colonic lipomas. Report of two unusual cases and review of the Mayo Clinic experience, 1976 - 1985. *Dis Colon Rectum* 1987; 30: 888 - 893.
25. Yu JP, Luo HS, Wang XZ: Endoscopic treatment of submucosal lesions of the gastrointestinal tract. *Endoscopy* 1992; 24: 190 - 193.

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