CASE REPORT

Endoscopic haemostasis by polypectomy: a case of sigmoid colon tubular adenoma with arterial haemorrhage

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SUMMARY

An 84-year-old woman was admitted to our hospital with a massive lower intestinal bleeding (LIB). The enhanced CT showed extravasation of blood in the sigmoid colon during the arterial phase. After discussion with the interventional radiologists, we proceeded to perform emergency colonoscopy that demonstrated massive gushing of blood from a pedunculated sigmoid colon polyp. The polyp was removed by snare polypectomy, which resulted in complete haemostasis. The pathological finding of the resected lesion was a tubular adenoma.

BACKGROUND

Lower intestinal bleeding (LIB) is a common problem worldwide. The incidence of LIB increases significantly with age and LIB may be more common than upper gastrointestinal bleeding in the elders.¹ It is reported that the major sources of LIB are diverticulosis (30–65%), angiodysplasia (4–15%), haemorrhoids (4–12%) and neoplasia (2–11%).² However, arterial haemorrhage from a colorectal adenoma is very rare. In addition, the case of endoscopic haemostasis by polypectomy to the arterial haemorrhage from a colorectal adenoma has not been previously reported. We report the use of endoscopic haemostasis by polypectomy to treat arterial haemorrhage from a tubular adenoma of the sigmoid colon.

CASE PRESENTATION

In December 2011, an 84-year-old woman was admitted to our hospital with over 10 episodes of haematochezia starting the day before admission. The bleeding was not continuous and she did not show signs of shock. She was taking low-dose aspirin, clopidogrel and warfarin due to chronic atrial fibrillation and coronary artery disease.

INVESTIGATIONS

The patient appeared generally well with a blood pressure and pulse rate of 146/90 mm Hg and 91 bpm, respectively. Her temperature was 36.6°C. She had neither abdominal pain nor tenderness. The blood test revealed haemoglobin of 11.9 g/dL and international normalised ratio 1.8. The enhanced CT showed extravasation of blood in the sigmoid colon during the arterial phase (figure 1). To identify the source of haemorrhage, emergency colonoscopy was performed.

DIFFERENTIAL DIAGNOSIS

From the CT findings, we immediately diagnosed the arterial haemorrhage in the sigmoid colon. It is not easy to identify the source of LIB, although it can be very helpful to treat the LIB patients. In our case, she had neither abdominal pain nor inflammation in the blood test, and therefore we may rule out colitis. According to the frequency of the source of LIB,¹ diverticulosis is most likely. The differential diagnosis for the source includes diverticulosis, angiodysplasia, haemorrhoids, neoplasia, rectal ulcer, rectal varices and colitis.

TREATMENT

In the sigmoid colon, we found massive gushing of blood from a 10 mm pedunculated polyp (figure 2A). The stalk was thought to be a non-neoplastic lesion (figure 2B). We clipped to the stalk first, then we resected it by polypectomy using the bipolar snare (ZEON MEDICAL EXCELLENCE, Tokyo, Japan). This resulted in complete haemostasis.

OUTCOME AND FOLLOW-UP

After the polypectomy, no further bleeding was observed. The patient had a total colonoscopy performed 3 days after the polypectomy, and we confirmed that there was no bleeding from the whole colon including the site of polypectomy. The patient resumed the same dose of low-dose aspirin, clopidogrel and warfarin the day after the total colonoscopy. The pathological finding of the resected lesion was tubular adenoma with severe atypia

Figure 1 A CT scan showing extravasation of blood in the sigmoid colon during the arterial phase (arrow).

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Figure 2 (A) In the sigmoid colon, we found massive gushing of blood from a 10 mm pedunculated polyp. (B) The stalk was thought to be a non-neoplastic lesion. (C) The pathological finding of the resected lesion was tubular adenoma with severe atypia. (D) The site of polypectomy was noted as a white scar 1 month after the discharge.

(figure 2C). The site of polypectomy was noted as a white scar at 1 month after the discharge (figure 2D).

DISCUSSION

Arterial haemorrhage from a colorectal adenoma is very rare. We searched PubMed for relevant citations. The search was completed in April 2013, which covered the published literature since January 2000. The terms in the search were “colorectal polyp” OR “colorectal adenoma” OR “colorectal neoplasm” AND “arterial bleeding” OR “arterial haemorrhage”. Haemostasis by polypectomy to the arterial haemorrhage from a colorectal adenoma has not been reported in the literature.

For acute massive LIB including upper gastrointestinal bleeding, multidetector row helical CT (MDCT) was very useful. Overall location-based sensitivity and specificity were 90.9% and 99%, respectively, and the localisation of the site of active bleeding was accurate in 100% of cases.³ Also, the overall sensitivity and specificity of CT angiography for detecting active acute LIB including upper gastrointestinal bleeding were reported to be 85.2% and 92.1%, respectively.⁴ In our case, we detected the localisation of the site of arterial haemorrhage by MDCT. However, we could not find the source of haemorrhage by MDCT, and therefore proceeded to colonoscopy.

By the colonoscopy with endoscopic therapy for LIB, the diagnosis was reported to be made in approximately 75% to 100% and the complication rate was 0.3%.² For safety and effectiveness for LIB, the timing of endoscopic therapy is advisable (within 12–24 h of admission).⁵ The complication rate was reported as 2% in patients undergoing colonoscopy within 12 h of admission.⁶

Low-dose aspirin, clopidogrel and warfarin can promote LIB. Nevertheless, the arterial haemorrhage from a colorectal adenoma is very rare. The timing of resuming anticoagulants to prevent postpolypectomy haemorrhage in our case seems to be very difficult due to the very rare case. In our case, we entirely followed the guideline of Japan Gastroenterological Endoscopy

Society.⁷ A total colonoscopy was performed 3 days after the polypectomy, and we confirmed that there was no bleeding from the whole colon including the site of polypectomy. The patient resumed the same dose of low-dose aspirin, clopidogrel and warfarin the day after total colonoscopy. We report a case of complete haemostasis by polypectomy to treat arterial haemorrhage from a colon adenoma.

Learning points

- ▶ Arterial haemorrhage can occur rarely from a colorectal adenoma.
- ▶ For acute massive gastrointestinal (GI) bleeding, multidetector row helical CT (MDCT) is not always useful as it is difficult to detect the source of GI bleeding in some cases.
- ▶ Colonoscopy is safe and effective for acute lower intestinal bleeding (LIB).
- ▶ We could achieve complete haemostasis by polypectomy for an arterial haemorrhage from a sigmoid colon adenoma.
- ▶ Anticoagulants could be safely resumed after total colonoscopy established that there was no further bleeding at the site of the haemostatic procedure.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Lanas A, García-Rodríguez LA, Polo-Tomás M, *et al*. Time trends and impact of upper and lower gastrointestinal bleeding and perforation in clinical practice. *Am J Gastroenterol* 2009;104:1633–41.

- 2 Strate LL, Naumann CR. The role of colonoscopy and radiological procedures in the management of acute lower intestinal bleeding. *Clin Gastroenterol Hepatol* 2010;8:333–43.
- 3 Yoon W, Jeong YY, Shin SS, *et al.* Acute massive gastrointestinal bleeding: detection and localization with arterial phase multi-detector row helical CT. *Radiology* 2006;239:160–7.
- 4 García-Blázquez V, Vicente-Bártulos A, Olavarria-Delgado A, *et al.* Accuracy of CT angiography in the diagnosis of acute gastrointestinal bleeding: systematic review and meta-analysis. *Eur Radiol* 2013;23:1181–90.
- 5 Strate LL. Lower GI bleeding: epidemiology and diagnosis. *Gastroenterol Clin North Am* 2005;34:643–64.
- 6 Green BT, Rockey DC, Portwood G, *et al.* Urgent colonoscopy for evaluation and management of acute lower gastrointestinal hemorrhage: a randomized controlled trial. *Am J Gastroenterol* 2005;100:2395–402.
- 7 Fujimoto K, Fujishiro M, Kato M, *et al.* Guidelines for gastroenterological endoscopy in patients undergoing antithrombotic treatment. *Dig Endosc* 2014;26:1–14.

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