Endoscopic hemoclips in postoperative bleeding

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SUMMARY
The field of application for endoscopic hemoclips has been increasingly extended, especially thanks to improvements in clips and additional clinical indications. Hemoclips are used more frequently for upper gastrointestinal (GI) bleeding and sometimes after therapeutic endoscopy. We report the successful use of endoscopic hemoclips in the management of two cases of postoperative colonic hemorrhage.

RÉSUMÉ
Utilisation des hémoclips endoscopiques dans les saignements postopératoires
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Les hémoclips endoscopiques sont surtout utilisés dans le traitement des hémorragies digestives hautes secondaires aux ulcères gastroduodénaux et faisant suite à une endoscopie interventionnelle. Nous rapportons deux cas de saignements postopératoires coliques traités efficacement par la pose d’hémoclips.

Introduction
Postoperative bleeding is a serious adverse effect, which may require additional emergency surgery. Morbidity or mortality after these operations may be high. We report two cases of postoperative colonic bleeding treated non-surgically with endoscopic hemoclips.

Case reports

Case 1
A 53-year-old woman underwent laparoscopic sigmoidectomy two months after an episode of sigmoid diverticulitis. She had no prior medical history. Eight hours after the operation, haematochezia occurred and because she was haemodynamically stable with a haemoglobin of 10.5 g/dL (initial haemoglobin before surgery was 12 g/dL), she was kept under medical supervision overnight and treated with intravenous iron injections. Twenty hours after surgery, a flexible sigmoidoscopy was performed due to recurrent rectal bleeding and two adherent clots on the anastomosis staple line with oozing blood were observed. The patient underwent an endoscopic haemostasis by injection therapy (4 mL of saline with 0.001% of epinephrine). After the injection, bleeding stopped, but recurred 12 hours later. 48 hours post-operatively, the haemoglobin level was 8.9 g/dL, so repeat flexible sigmoidoscopy was performed : 4 mL of saline 0.001% of epinephrine was injected followed by the placement of three endoscopic hemoclips (HX-200-135, Olympus) (figure 1). There was no further bleeding and she left hospital five days later. Repeat full blood count demonstrated a haemoglobin level of 9 g/dL. One year later, she was healthy with no further bleeding.

Case 2
A 72-year-old man was admitted to the intensive care unit for pneumonia. Several days after admission, he received a rectal enema for faecal impaction. Two hours following the enema, significant haematochezia occurred with a reduction in haemoglobin from 9.7 g/dL to 6.4 g/dL. He was transfused with five units of packed red blood cells. He underwent an urgent transanal operation which revealed a bleeding ulcer, 5 cm proximal to the anal margin on the left side of the rectum. Haemorrhage stopped immediately after the surgical procedure (X-shaped stitching). Eleven days after surgery, rectal bleeding recurred and additional blood transfusion was required (three units). A flexible sigmoidoscopy was performed and showed that the bleeding site corresponded to the previously sutured area. Three endoscopic hemoclips (HX-200-135, Olympus) were placed, which stopped the bleeding definitively (figure 2). There was no further bleeding during the two months of follow-up.

Discussion
We report two cases of postoperative colonic bleeding that were successfully treated by endoscopic hemoclips. To our knowledge no similar cases have been reported to date. The scope of the use of endoscopic hemoclips has been extended due to technical improvements [1]. The main indications are interruption of active GI bleeding from various lesions, but they are also employed to close perforations or fistulas of the GI tract, to secure catheters to the GI wall, and to help direct therapy or identify an anatomical landmark [1]. In patients with upper GI bleeding caused by peptic ulcers, Mallory-Weiss tears or Dieulafoy’s lesion, protocols such as hemoclip placement alone, epinephrine injection, heater probe therapy or combined procedures are commonly practiced. Nevertheless, randomized controlled trials have not shown significant differences between the methods described above [1]. For lower GI bleeding, there is no standardized protocol for endoscopic therapy. In postpolypectomy bleeding, hemoclip placement alone or in combination with epinephrine injections has been successful in all cases of immediate bleeding. Yet, in a randomized controlled study, prophylactic hemoclip placement did not prevent delayed bleeding after electrocoagulation mucosal resection [1, 2]. For colonic diverticular bleeding, injection therapy with epinephrine or thermal endoscopic haemostatic modalities (heat probe or multipolar probe coagulation) is successful with a high risk of perforation, whereas hemoclips can
be used safely [1, 3]. For bleeding colonic ulcers, hemoclips alone were successful to treat a bleeding visible vessel in two patients with ulcerative colitis [4], but was not used in the largest study of rectal ulcers [5]. In this study, bleeding recurred in patients with major signs of recent haemorrhage, although complete haemostasis was obtained with a combination of epinephrine injections and bipolar electrocoagulation. Only one study on the use of hemoclips and epinephrine has been reported in bleeding rectal ulcers [6]. In this case, ulcers were secondary to suppositories. In our second patient, this combination was also successful.

REFERENCES


