

Use of endoscopic band ligation for treatment of postpolypectomy hemorrhage

Polipektomi sonrası kanamada endoskopik bant ligasyonunun kullanımı

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A 61-year-old woman underwent colonoscopy to investigate lower gastrointestinal bleeding. A pedunculated polyp with a long stalk was identified in the sigmoid colon, and snare polypectomy was performed. Postpolypectomy arterial bleeding occurred after the resection, and the bleeding was stopped with immediate epinephrine and sclerosing agent injection. However, rectal bleeding started again three hours after polypectomy. In the repeat colonoscopic investigation, the site of the bleeding was confirmed at the stalk of the removed polyp. Endoscopic band ligation of the stalk was performed using a gastroscope and ligator instrument, and bleeding from the stalk was successfully controlled.

Key words: Band ligation, polypectomy, hemorrhage

INTRODUCTION

Endoscopic polypectomy is considered the standard of care for the treatment of colorectal polyps (1). The two most important complications of polypectomy are perforation and bleeding. Hemorrhage has been reported to occur after 1-6% of polypectomies, with clinically significant bleeding in only some 1% of the cases (1-4). In general, bleeding occurs during the transection of the polyp stalk. Delayed bleeding can occur after a few hours or even after a few days in 2% of the patients. Less than 50% occurs immediately after the procedure (1-3).

Bleeding prophylaxis can be attempted using several techniques, such as application of hemoclips, endoloops or injection of sclerosing solutions (5-9).

CASE REPORT

A 61-year-old woman underwent colonoscopy to investigate the source of lower gastrointestinal bleeding. The examination was performed with the patient under conscious sedation with meperidine 25 mg and midazolam 2 mg given intravenously. During the procedure, a pedunculated polyp with a long stalk was identified in the sigmoid colon, and snare polypectomy was applied (Figure 1). Postpolypectomy arterial bleeding occurred immediately after the resection (Figure 2). The bleeding was stopped with immediate epinephrine and sclerosing agent injection. However, rectal bleeding star-

Alt gastrointestinal kanama şüphesiyle kolonoskopi yapılan 61 yaşında kadın hastada sigmoid kolonda uzun saplı bir polip saptandı. Polipektomi yapılan hastada işlem sonrası ciddi arteriyel kanama olması üzerine işlem bölgesine acilen epinefrin ve sklerozan ajan uygulanarak kanama kontrolü sağlandı. 3 saat sonra hastanın rektal kanamasının tekrarlaması üzerine kontrol kolonoskopide polip sapından kanamanın devam ettiği gözlemlendi. Bunun üzerine polip sapına gastroskop ile endoskopik bant ligasyon uygulandı. Bu uygulama ile kanama başarılı bir şekilde durdurulabildi.

Anahtar kelimeler: Bant ligasyon, polipektomi, hemoraji

ted again three hours after polypectomy with hemodynamically significant acute hemochezia and an abrupt decrease in hematocrit level from 39% to 24%. Prothrombin time was 50 seconds. She had a history of coumadin use due to coronary heart disease. The patient was transfused with 6 units of packed red cells and 9 units of fresh frozen plasma. Urgent colonoscopy revealed an arterial bleeding at the stalk of the removed polyp. Endoscopic band ligation (EBL) of the stalk was performed using a gastroscope and ligator instrument, and band ligation of the stalk resulted in immediate hemostasis (Figure 3). The patient remained asymptomatic thereafter for one week.

DISCUSSION

Postpolypectomy bleeding can be mild mucosal oozing that ceases spontaneously or severe bleeding with resultant hypovolemia and hemodynamic instability. Antiplatelet agents (including aspirin, non-steroidal anti-inflammatory drugs [NSAIDs], ticlopidine, clopidogrel, and glycoprotein IIb/IIIa receptor antagonists) and anticoagulants may increase the risk of postpolypectomy bleeding (10-12). Our patient had a history of warfarin use, and her international normalized ratio (INR) level was very high. Hui et al. (13) performed polypectomy in 1657 patients. There were 37 cases of polypectomy-associated bleeding (2.2%); bleeding was immediate in

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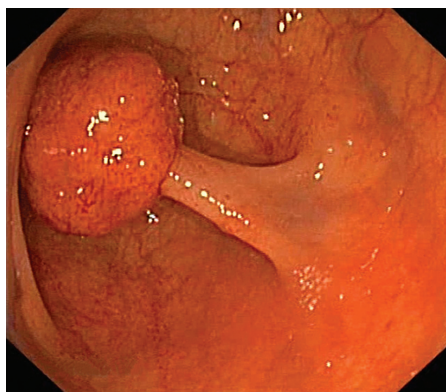


Figure 1. Pedunculated polyp in the sigmoid colon.

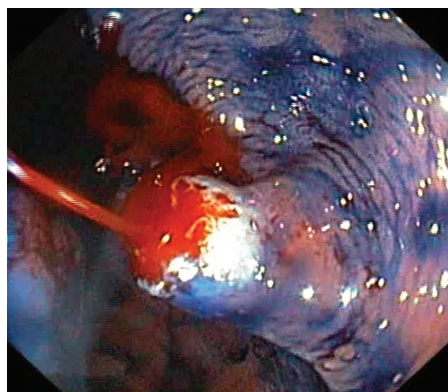


Figure 2. Arterial bleeding from stalk of polyp.

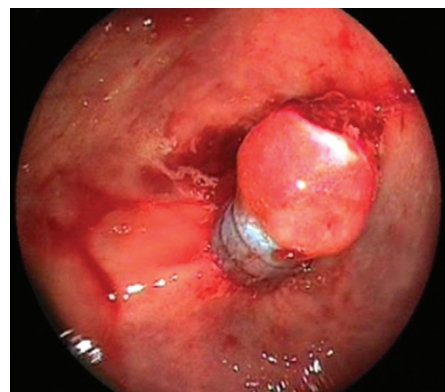


Figure 3. Bleeding stopped after endoscopic band ligation.

32 and delayed in 5. Multivariate analysis showed that warfarin use was an independent risk factor for bleeding. Anticoagulants, such as warfarin, should be stopped and the INR should be normalized before performing an elective colonoscopy in which therapeutic maneuvers are anticipated.

A postpolypectomy bleeding stalk has been conventionally treated with surgery or modalities like argon plasma coagula-

tion, laser photocoagulation or bipolar electrocoagulation and hemoclip. EBL is an infrequently used modality for treatment of post polypectomy bleeding. Nijhawan et al. (14) reported the successful use of EBL for the management of postpolypectomy bleeding stalk. We report the successful use of this technique for the management of a postpolypectomy bleeding stalk with a gastroscope. The advantages of band ligation are its low cost, easy availability and ease of application.

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