

BRIEF REPORT

Over-the-scope clip closure of gastric endoscopic submucosal dissection-induced ulcer in a patient with bleeding tendency

Naoto Iwai,^{*,†} Takashi Okuda,^{*} Toshifumi Tsuji,^{*} Hiroaki Sakai,^{*} Kohei Oka,^{*} Junichi Sakagami^{*,†} and Keizo Kagawa^{*,†}

^{*}Department of Gastroenterology and Hepatology, Fukuchiyama City Hospital, Fukuchiyama and [†]Molecular Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine Graduate School of Medical Science, Kyoto, Japan

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Correspondence

Naoto Iwai, Department of Gastroenterology and Hepatology, Fukuchiyama City Hospital, 231 Atsunaka-cho, Fukuchiyama, Kyoto 620-8505, Japan.
Email: na-iwai@koto.kpu-m.ac.jp

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A man in his 70s, with a history of aplastic anemia and dementia, underwent esophagogastroduodenoscopy because of chronic iron-deficiency anemia. It revealed a 1-cm elevated lesion in the posterior wall of the gastric upper body, suggestive of a gastric-type adenoma or adenocarcinoma (Fig. 1a). Thrombocytopenia due to aplastic anemia may cause bleeding after endoscopic submucosal dissection (ESD).¹ Although he received the oral thrombopoietin-receptor agonist and the calcineurin inhibitor for aplastic anemia,

laboratory tests revealed a low platelet count (43 000/mm³), hemoglobin was 12.2 g/dL, white blood cell count was 2600/mm³, and neutrophil count was 1140/mm³. Regarding dementia, the Mini-Mental State Examination score was 17, while the Hasegawa dementia rating scale-revised score was 10, suggesting the prevalence of moderate-to-severe dementia. Furthermore, continuous hospitalization may be challenging for the patient with dementia. His family insisted on endoscopic treatment; therefore, we planned

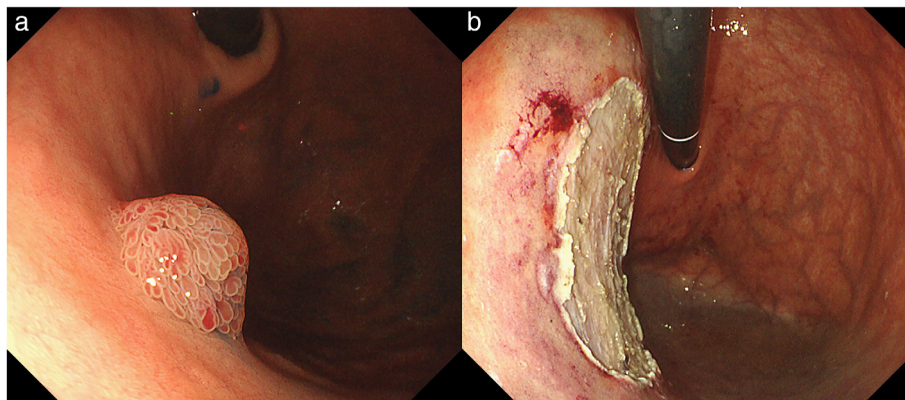


Figure 1 (a) Esophagogastroduodenoscopy revealed a 1-cm elevated lesion in the posterior wall of the gastric upper body. (b) Esophagogastroduodenoscopy showed an artificial ulcer just after the treatment.

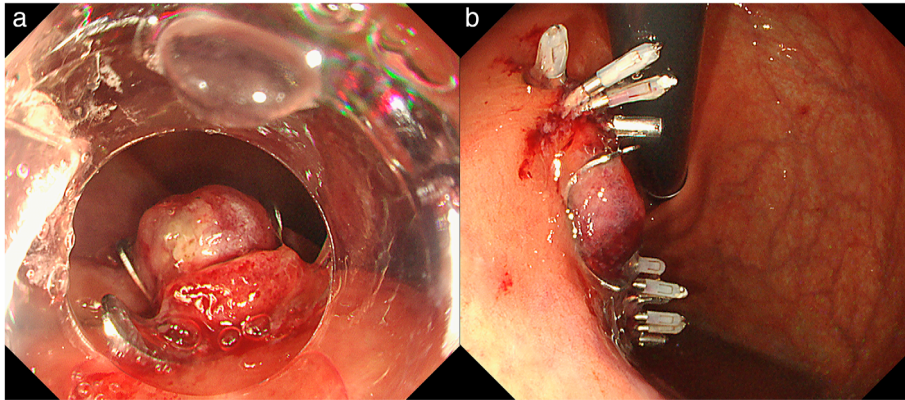


Figure 2 (a) Artificial ulcer was closed using an over-the-scope clip system. (b) Ulcer was subsequently closed using conventional clips.

prophylactic closure of the artificial ulcer to prevent post-ESD bleeding by use of an over-the-scope clip (OTSC). The procedures were approved by the Institutional Ethics Committee. A prophylactic platelet transfusion was administered the day before ESD. Then, ESD was performed, and visible vessels in the artificial ulcer were coagulated using hemostatic forceps (Fig. 1b). Subsequently, the ulcer was closed by the OTSC (Ovesco Endoscopy) with the aid of Twin Grasper (Ovesco Endoscopy) and conventional clips (Fig. 2a,b). Hospitalization was difficult because of dementia; thus, he underwent second-look endoscopy, and was discharged the following day. In addition, laboratory tests were performed at 1, 3, and 10 days after ESD. Afterward, the post-operative course was uneventful. The resected specimen was diagnosed as a foveolar-type gastric adenoma, resulting in curative therapy with negative margins.

The OTSC system has been developed as a full-thickness suturing device through endoscopic equipment. Its indications are perforation, fistula, refractory gastrointestinal bleeding, or anastomotic leakage.² Recently, some previous studies have shown that artificial ulcer closure using the OTSC system may be useful for the patients undergoing gastric, duodenal, and colorectal ESD.^{3–6} However, its efficacy is uncertain. This case indicates that ulcer closure using the OTSC system might be suitable for prevention of post-ESD bleeding if the patients have a bleeding tendency and difficulties in continuous hospitalization. In the future, further research is needed to determine the efficacy of post-ESD ulcer closure using the OTSC system in such patients.

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