Circumferential Endoscopic Submucosal Dissection of long-segment Barrett’s Esophagus with Multifocal High-Grade Dysplasia

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Case Report

A 79-year-old male patient presented with persistent retrosternal burning and high-volume reflux for the last 5 years. His reflux symptoms had become refractory to proton pump inhibitors and prokinetic agents since the past 2 years. He had significant comorbidities as he had panhypopituitarism and a history of stroke with left carotid artery stenosis. He underwent an esophagogastroduodenoscopy (EGD) at our center that revealed a long-segment circumferential Barrett’s esophagus with irregular surface and vascular pattern (C8M8, Paris 0-IIb) (►Fig. 1). Multiple biopsies were taken as per the Seattle protocol that revealed Barrett’s esophagus with multifocal high-grade dysplasia.

A multidisciplinary discussion about treatment options was done, and oesophagectomy was considered as high risk because of associated comorbidities. He underwent a CECT chest and abdomen, which revealed no significant mediastinal or abdominal lymphadenopathy. We decided to do a circumferential endoscopic submucosal dissection (ESD) of Barrett’s segment in view of multiple comorbidities. The pocket-creation ESD method was employed.1 We used a hybrid knife, VIO 200D electrogroanator (ERBE) with a forward-viewing endoscope (GIF-HQ190; Olympus, Tokyo, Japan) and a carbon dioxide (CO2) insufflator (UCR; Olympus, Tokyo, Japan). We created an anterior and a posterior tunnel by submucosal dissection and these were subsequently joined, hence an en-bloc resection could be achieved. The procedure took 150 minutes to complete, and the 8-centimeter long circumferential specimen was sent for histopathological examination (►Fig. 2-4, ►Video 1). Histopathological examination confirmed an R0 resection of a long-segment Barrett’s esophagus with multifocal high-grade dysplasia and foci of T1a adenocarcinoma. The patient underwent a gastrografin swallow study on a subsequent day and could be started on a liquid diet on that day.

Video 1

The rate of stricture occurrence after near-circumference or whole-circumference ESD has been reported to be between 60 and 100%. The patient underwent an OGD after 1 month that revealed a concentric short-segment stricture along the proximal margin of dissection (Fig. 5). He underwent balloon dilatation of the stricture with an injection of triamcinolone acetonide (40 mg/mL diluted as 1:1 with saline solution) using a 23-gauge, 5-mm long sclerotherapy needle in aliquots of 0.5 mL in each quadrant (Fig. 6). The patient was already on oral corticosteroids for panhypopituitarism, and fortunately...
did not have a stricture recurrence. He underwent another EGD after 3 months that revealed reappearance of healthy squamous mucosa throughout the resected surface (►Fig 7).

Conflict of Interest
None declared.

References

Fig. 7 Follow-up after 3 months.