Successful endoscopic submucosal dissection of duodenal cancer

This is the first report of complete resection of early duodenal cancer using endoscopic submucosal dissection (ESD) monotherapy.

A 66-year-old Japanese man visited the hospital in order to undergo screening for cancer on June 2004. Endoscopic examination of the upper digestive tract revealed a faintly marked, red, depressed (0-IIc) lesion, 3.5 × 3.0 mm in diameter, on the posterior wall of the duodenal cap (**Fig. 1**). The biopsy specimen obtained from the lesion revealed a well-differentiated tubular adenocarcinoma (**Fig. 2**). No metastasis to any other organ was found. A barium X-ray study showed there was no notable duodenal transformation. In addition, the lesion showed the lifting sign after submucosal saline injection [1,2]. This lesion was diagnosed as a mucosal duodenal cancer. ESD was selected for this patient after histological confirmation of the diagnosis. A cylindrical transparent hood was attached to the endoscope to maintain a satisfactory view during the procedure.

ESD was carried out primarily using the flex knife (KD-630L; Olympus) and hook knife (KD-620LR; Olympus) as described previously by Kodashima and Rösch [3,4] (**Fig. 3**). Bleeding during the procedure was managed by the administration of thrombin and by snare coagulation. Some hemoclips were also used to prevent perforation (**Fig. 4**). No recurrence has been found in more than 3 years since ESD (**Fig. 5**). In this patient, the successful outcome depended on two points: (i) the use of hemoclips on the scar after resection, and (ii) the attachment of a cylindrical transparent hood to the endoscope, which together made the ESD easier and safer.

ESD might be one of the most effective and useful techniques for the treatment of early duodenal cancer in the future.

Fig. 1 An endoscopic examination of the upper digestive tract revealed a faintly marked, red, depressed (0-IIc) lesion, 3.5 × 3.0 mm in diameter, on the posterior wall of the duodenal cap.

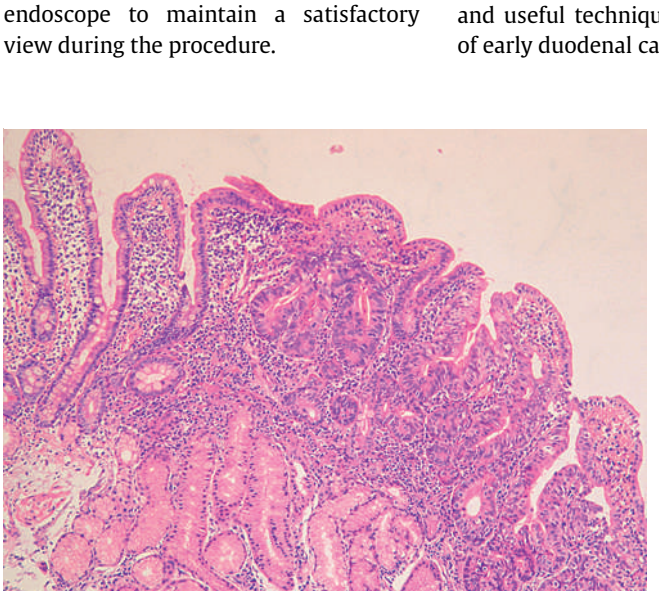

Fig. 2 The biopsy specimen obtained from the lesion revealed a well-differentiated tubular adenocarcinoma (H & E, original magnification × 40).

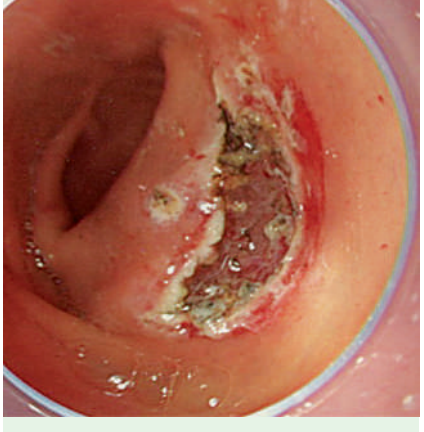

Fig. 3 The lesion was completely resected with a safe lateral and vertical margin.

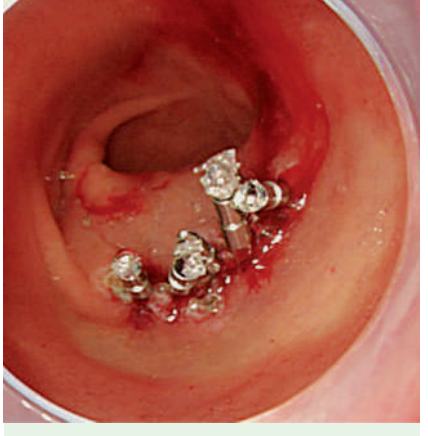

Fig. 4 After the resection the scar was closed by hemoclips to prevent perforation.

Fig. 5 No recurrence has been observed in more than 3 years since the ESD was carried out.

Endoscopy_UCTN_Code_TTT_1AO_2AG

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DOI 10.1055/s-2007-995685
Endoscopy 2008; 40: E132 – E133

ISSN 0013-726X

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