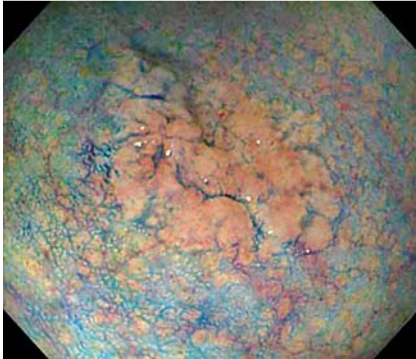
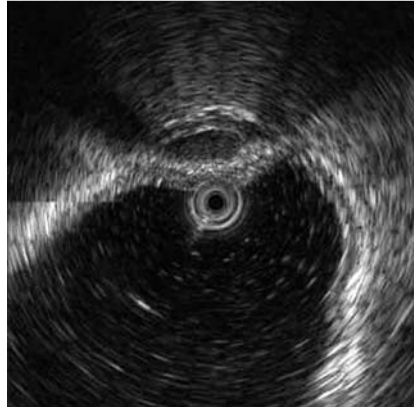


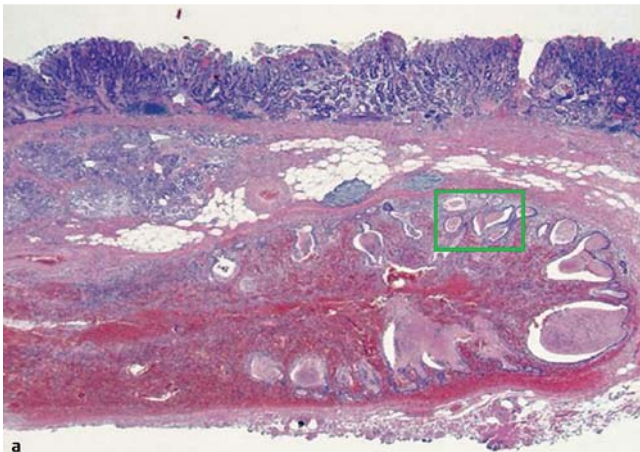
## Gastric adenocarcinoma with a submucosal cyst treated by endoscopic submucosal dissection (ESD)



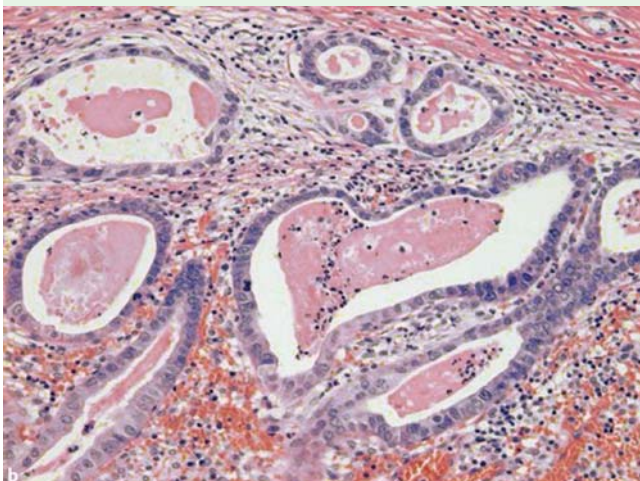
**Fig. 1** Endoscopic view of a slightly raised early gastric cancer lesion (0-IIa) sprayed with indigo carmine dye. The tumor was located in the lesser curvature of the middle portion of the gastric body.



**Fig. 2** Endoscopic ultrasonography (EUS) demonstrating that the tumor was limited to the mucosal layer. There was an 8-mm submucosal cystic lesion underneath the tumor.



**Fig. 4** **a** Loupe view of the resected specimen showing well-differentiated adenocarcinoma (18 × 14 mm) with a submucosal cystic lesion (hematoxylin and eosin, magnification × 10). **b** The submucosal cystic lesion surrounded by thick layers of smooth muscle. The lesion partially consisted of atypical adenomatous glands (hematoxylin and eosin, magnification × 100).



**Fig. 3** **a** The early gastric cancer and the submucosal cystic lesion after en-bloc endoscopic submucosal dissection (ESD). **b** Macroscopic view of the resected specimen (48 × 28 mm).

Isolated gastric submucosal cysts that consist of heterotopic glands are often encountered in the resected stomach. However, the presence of neoplastic tissue in such cysts is relatively rare [1,2]. A close relation between diffuse gastric submucosal cysts and gastric cancer has been reported, but the mechanism has not been clarified. Chronic gastritis and intestinal metaplasia have been observed in the mucosa surrounding diffuse gastric submucosal cysts [1]. A major causative factor for gastric inflammation is *Helicobacter pylori* infection. Repeated erosion is induced by the chronic gastric inflammation, and following regeneration this may cause cancer as well as an aberration of the gastric glands. Diffuse submucosal cysts may give rise to a paracancerous lesion rather than a predisposing condition to gastric cancer. We report a rare case of early gastric cancer associated with a sub-

mucosal cystic lesion treated by endoscopic submucosal dissection (ESD).

A 77-year-old woman was referred to our hospital for the treatment of early gastric cancer. Endoscopy showed a slightly raised, early gastric cancer lesion (0–IIa) at the lesser curvature of the middle portion of the gastric body (● Fig. 1).

Endoscopic ultrasonography (EUS) showed that the tumor was limited to the mucosal layer and an 8-mm submucosal cystic lesion was present underneath the tumor (● Fig. 2).

Both the early gastric cancer and the submucosal cystic lesion were resected en bloc by ESD (● Fig. 3).

The resected specimen showed a well-differentiated adenocarcinoma (18 × 14 mm) with clear margins. The submucosal cystic lesion, which was surrounded by thick layers of smooth muscle, partially consisted of atypical adenomatous glands (● Fig. 4).

There were no immediate or late complications. Thus ESD proved to be an effective treatment for this rare gastric adenocarcinoma with an associated gastric submucosal cyst.

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## Bibliography

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