Flat gastric epithelial neoplasm detected by endoscopic screening with autofluorescence imaging video endoscopy

Auto-fluorescence imaging (AFI) video endoscopy provides real-time color images from the computerized capture of fluorescence emitted from natural endogenous fluorophores that have been excited by light of specific wavelength. With early gastric cancers, AFI can visualize flat tumors, or the extent of isochromatic lesions and normal tissue, it was able to reveal a flat neoplasm that did not show up under white-light endoscopy. A 79-year-old man with history of endoscopic submucosal resection for early gastric cancer was scheduled to undergo follow-up examination in our endoscopy unit. Endoscopic screening was done using an AFI protosystem. The system consists of an image processor (XCV-260HP; Olympus Medical Systems Corp., Tokyo, Japan), a light source (XCLV-260HP), and a dedicated video system Corp., Tokyo, Japan), a light source (XCLV-260HP), and a dedicated video system for early gastric cancer. AFI and magnifying NBI, it was removed by endoscopic submucosal dissection. Histological examination of the resected specimen showed that it was well-differentiated tubular adenocarcinoma confined to the mucosa and with clear margins. In our patient, autofluorescence observation showed a 20-mm blurred purple area in the prepylorus (Fig. 1) that was not clear in white-light images (Fig. 2). Magnifying NBI showed a fine-network microvascular pattern in the center, suggesting a differentiated-type adenocarcinoma (Fig. 3) [3]. With the extent of the tumor being established by both AFI and magnifying NBI, it was removed by endoscopic submucosal dissection. Histological examination of the resected specimen showed that it was well-differentiated tubular adenocarcinoma confined to the mucosa and with clear margins (Fig. 4, Video 1).

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