New-generation endocytoscopy with CM double staining for optical characterization of colon sessile serrated adenoma

New-generation endocytoscopy (single lens, continuous zoom) enables in vivo ultra-high magnification (520×) for visualization at the cellular level and allows a precise pathological prediction of gastrointestinal (GI) neoplasia [1].

A 60-year-old man received colonoscopy screening owing to a positive fecal immunochemical test. A 1.2-cm slightly whitish colon polyp was found at the sigmoid colon by white imaging and narrow-band imaging (Fig.1). Endocytoscopy (CF-H290ECI endocytoscope; Olympus, Tokyo, Japan) was performed after CM double staining (0.05% crystal violet and 1% methylene blue mixture) (Fig.2, Video 1). It showed dilated gland lumens, i.e., oval crypt openings with some small round nuclei (Fig.3) [2–4]. Polypectomy was done, and the histology revealed typical features of sessile serrated adenoma, with dilated and L-shaped crypts (Fig.4) [5]. Sessile serrated adenomas are precursors of colorectal cancers and must be distinguished from hyperplastic polyps and treated endoscopically. Endocytoscopy is a promising tool for optical characterization of sessile serrated adenoma to guide subsequent endoscopic management.

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Competing interests

The authors declare that they have no conflict of interest.

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Fig. 3 Endocytoscopy for characterization of sessile serrated adenoma demonstrated dilated crypt openings with some small round nuclei.

Fig. 4 The pathological analysis of the polyp showed dilated and L-shaped crypts, which are compatible with the diagnosis of sessile serrated adenoma.

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