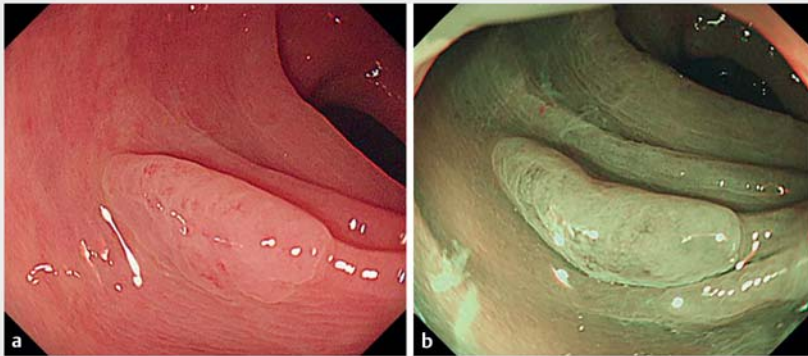


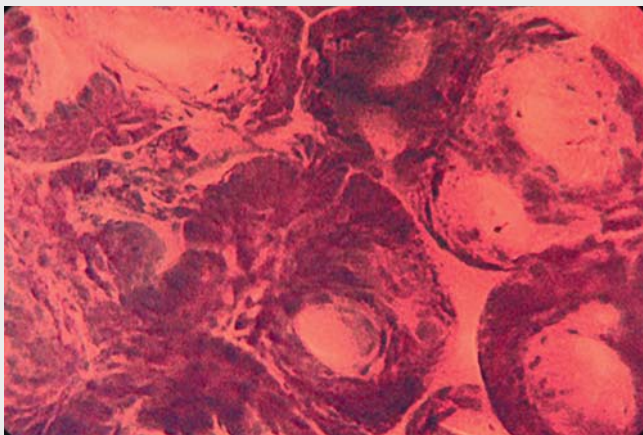
## New-generation endocytoscopy with CM double staining for optical characterization of colon sessile serrated adenoma



► **Fig. 1** A colon polyp was detected at the sigmoid colon. **a** White-light image. **b** Narrow-band image.



► **Fig. 2** Prior to endocytoscopic observation, a mixture of 0.05% crystal violet and 1% methylene blue was prepared to stain the cytoplasm and nucleus, respectively.



► **Video 1** Endocytoscopy with CM double staining (crystal violet and methylene blue) to characterize the colon sessile serrated adenoma, demonstrating dilated oval crypt openings with some small round nuclei.

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 sig-

moid 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.

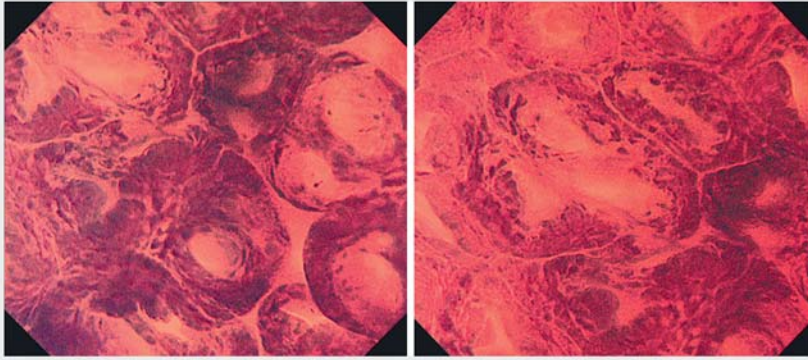
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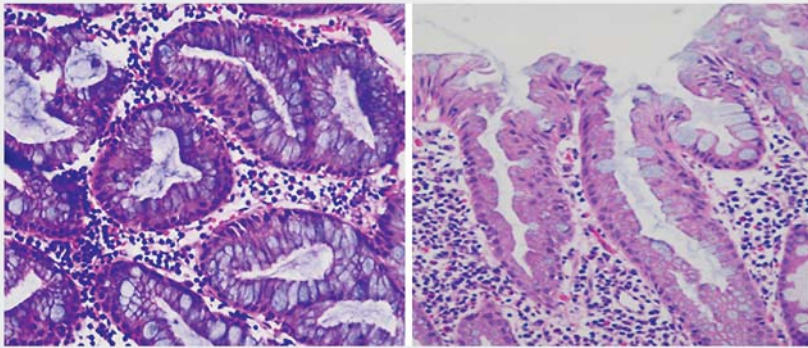
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► **Fig. 3** Endocytoscopy for characterization of sessile serrated adenoma demonstrated dilated crypt openings with some small round nuclei.



► **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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## References

- [1] Kudo T, Kudo SE, Mori Y et al. Classification of nuclear morphology in endocytoscopy of colorectal neoplasms. *Gastrointest Endosc* 2017; 85: 628–638
- [2] Mori Y, Kudo SE, Ogawa Y et al. Diagnosis of sessile serrated adenomas/polyps using endocytoscopy (with videos). *Dig Endosc* 2016; 28: 43–48
- [3] Kutsukawa M, Kudo SE, Ikehara N et al. Efficiency of endocytoscopy in differentiating types of serrated polyps. *Gastrointest Endosc* 2014; 79: 648–656
- [4] Ogawa Y, Kudo SE, Mori Y et al. Use of endocytoscopy for identification of sessile serrated adenoma/polyps and hyperplastic polyps by quantitative image analysis of the luminal areas. *Endosc Int Open* 2017; 5: e769–e774
- [5] Rosty C, Hewett DG, Brown IS et al. Serrated polyps of the large intestine: current understanding of diagnosis, pathogenesis, and clinical management. *J Gastroenterol* 2013; 48: 287–302

## Bibliography

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