Optical real-time biopsy by endocytoscopy: a case of sessile serrated lesion with dysplasia

Sessile serrated lesions (SSLs) are early precursor lesions in the serrated neoplasia pathway, which progresses through SSL with dysplasia (SSLD) to invasive carcinoma. In SSLD, certain endoscopic characteristics, including double elevation, central depression, and reddishness, have been found frequently, and type III, IV, and VI pit patterns were observed more frequently using magnifying chromoendoscopy with indigo carmine or crystal violet staining [1]. Endocytoscopy is useful for distinguishing SSLD [2], but the endocytoscopy findings of SSLD are poorly understood. Herein, we report a case of SSLD observed using endocytoscopy (▶ Video 1).

A 71-year-old man underwent a colonoscopy, which revealed an area of slightly elevated mucosa in the cecum, with reddish nodules on the oral and anal sides of the lesion (▶ Fig. 1a). Magnifying narrow-band imaging (NBI) showed no vessel pattern in the slightly elevated area, and dilated and branching vessels were seen in the reddish nodules (▶ Fig. 1b and ▶ Fig. 2a–c). With chromoendoscopy with indigo carmine, the boundary of the lesion was clearly visible (▶ Fig. 1c). Magnifying chromoendoscopy using crystal violet staining showed a type II open pit pattern in the slightly elevated central area and the reddish nodule on the oral side of the lesion (▶ Fig. 2d, e). Type III pits were seen in the reddish nodule on the anal side of the lesion (▶ Fig. 2f). Endocytoscopy using 1.0% methylene blue and 0.05% crystal violet showed oval lumens and small round nuclei in the slightly elevated area and in the reddish nodule on the anal side of the lesion (▶ Fig. 3b, c). Irregular lumens and swollen roundish nuclei were seen in the nodule on the oral side (▶ Fig. 3a; ▶ Video 1). Therefore, we diagnosed SSLD and en bloc endoscopic resection was performed. Histopathological findings revealed an SSLD in the reddish nodule that was endoscopically on the oral side of the lesion (▶ Fig. 4 and ▶ Fig. 5).

▶ Fig. 1 Endoscopic images showing a slightly elevated area of mucosa in the cecum: a in white light; b on narrow-band imaging; c on chromoendoscopy using indigo carmine.

▶ Video 1 A sessile serrated lesion with dysplasia found in the cecum is observed by endocytoscopy.
In this case, two reddish nodules were observed. Magnifying chromoendoscopy showed suspected dysplasia in the reddish nodule on the anal side of the lesion, but endocytoscopy was correctly able to identify the dysplasia in the nodule on the oral side of the lesion from the findings of irregular lumens and swollen roundish nuclei.

**Competing interests**

The authors declare that they have no conflict of interest.
The authors

Kengo Kasuga¹, Yutaka Saito¹, Hiroyuki Takamaru⁰, Masayoshi Yamada¹, Taku Sakamoto¹, Shigeki Sekine², Toshio Uraoka³

¹ Endoscopy Division, National Cancer Center Hospital, Tokyo, Japan
² Pathology Division, National Cancer Center Hospital, Tokyo, Japan
³ Department of Gastroenterology and Hepatology, Gunma University Graduate School of Medicine, Maebashi, Japan

Corresponding author

Yutaka Saito, MD, PhD
Endoscopy Division, National Cancer Center Hospital, 5-1-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan
ytsaito@ncc.go.jp

References


Bibliography

Endoscopy 2022; 54: E249–E251
DOI: 10.1055/a-1443-4276
ISSN: 0013-726X
published online: 18.6.2021
© 2021. Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at
https://mc.manuscriptcentral.com/e-videos