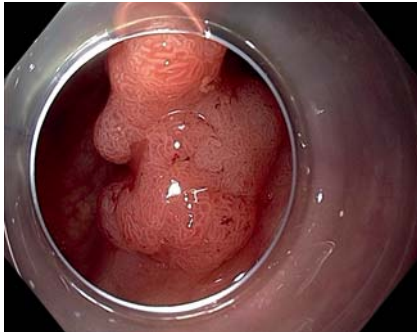
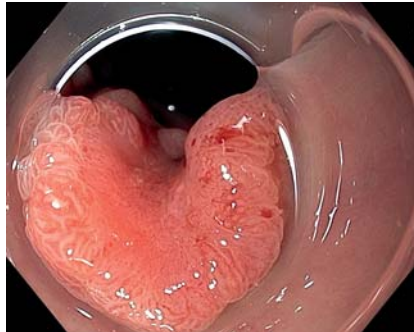


Histological R0 classification after colorectal endoscopic submucosal dissection: a gold standard with feet of clay

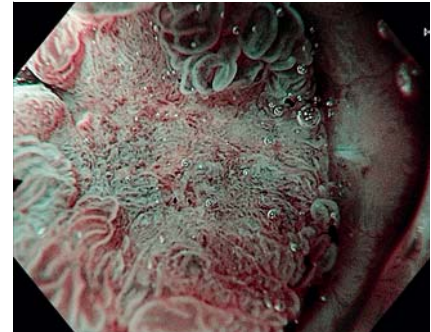
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► **Fig. 1** White light view of the granular laterally spreading tumor in the left colon.



► **Fig. 2** White light view of the 10-mm demarcated area highly suspicious for deep invasive degeneration.



► **Fig. 3** Corresponding narrow-band imaging view of the demarcated area.



► **Fig. 4** White light view during endoscopic submucosal dissection showing contact with the lesion invading the entire submucosa (green arrow) and part of the muscle (yellow arrows).



► **Video 1** Characterization and endoscopic submucosal dissection of a granular laterally spreading tumor.

The residual tumor (R) classification is the gold standard for the evaluation of residual tumors after treatment [1]. As an important predictor of prognosis, it is of considerable clinical significance. It takes into account the clinical and pathological examination of the tumor. In the field of colorectal lesion resection, a resection is considered R0 when the tumor is removed in a single piece (en bloc) with tumor-free lateral and vertical margins. For resection of a superficial lesion to be considered curative, an R0 en bloc resection with histology no more advanced than a well-differentiated adenocarcinoma and submucosal invasion of less than

1 mm without lymphovascular invasion is currently required [2].

We herein report the case of a patient with a 4-cm granular laterally spreading tumor in the left colon (► **Fig. 1**). This lesion includes a 10-mm Kudo Vn Sano 3b demarcated area highly suspicious for deep invasive degeneration (► **Fig. 2**, ► **Fig. 3**). During endoscopic submucosal dissection (ESD), contact was made with the lesion, which invaded the entire submucosa and probably even the initial fibers of the muscle (► **Fig. 4**, ► **Video 1**).

Although the resection was highly suspicious of R1 on clinical examination, pathological examination initially suggested a complete R0 resection. After reanalysis and new cut of slices, the resection was reclassified R1, and final histology of the resection specimen was in favor of a deep tumor deposit.

This case of anatomical-clinical discordance shows that good collaboration between clinicians and pathologists remains essential. Pathological examination is also subject to sampling error: by


making 8-micrometer sections every 2000 micrometers, only 0.4% of the tumor volume is examined. Clinical examination of a lesion should take precedence over pathological examination. In practice, R0 en bloc resection could be a goal for all colorectal lesions. In the future, artificial intelligence may help overcome these limitations of pathological examination and determine more precisely the deepest point of invasion.

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Competing interests

The authors declare that they have no conflict of interest.

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