Serrated carcinoma arising from a sessile serrated adenoma

Sessile serrated adenoma/polyp (SSA/P), a distinct serrated polyp subtype, can progress to colorectal cancer via the serrated neoplasia pathway [1]. On endoscopic examination, SSA/Ps usually show a flat or sessile appearance, a mucus covering, and a type II pit pattern. The endoscopic findings of uncomplicated SSA/Ps are well known; however, the endoscopic features of serrated carcinomas arising from SSA/Ps have not been fully described [2, 3]. Herein, we report a case of serrated carcinoma arising from an SSA/P in a 66-year-old man who underwent endoscopic submucosal dissection (ESD) following colorectal cancer screening.

Colonoscopy revealed a 27-mm laterally spreading tumor in the ascending colon (Fig. 1). Most of the mass showed a flat elevated surface with a mucus covering, whereas the peripheral portion displayed a nodular appearance. The central area showed a type II (stellate) pit pattern, whilst the peripheral area displayed a type III (tubular) pit pattern (Fig. 2). Because there was a considerable risk of piecemeal resection, the tumor was resected by ESD instead of by endoscopic mucosal resection (EMR) [4].

On gross examination, the mass comprised two main parts (Fig. 3a). Histopathological examination of these areas showed that the flat elevated area met the SSA/P criteria (green line), the nodular reddish area corresponded to an intramucosal adenocarcinoma (red line), whilst histologic transition was noted between the two areas (orange line; Fig. 3b, c). Despite increasing attention being paid to SSA/Ps, the endoscopic findings of SSA/Ps that are showing early neoplastic progression are not yet well known. We believe the present case clearly shows a biphasic endoscopic appearance of an SSA/P transitioning to a serrated carcinoma.

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Competing interests: None
Fig. 3  Appearances of the resected tumor.

a. Gross appearance showing a biphasic tumor with a flat elevated area (green line), nodular area (red line), and an intervening transitional area (orange line).

b. Low power view of the tumor with the three areas indicated by their respective colors on the bar below (original magnification × 12.5).

c. High power view of each of the tumor areas showing features consistent with an SSA/P in the green area, an intramucosal adenocarcinoma in the red area and an area with low grade dysplasia in the transitional orange area (original magnification × 200).