Early mucinous colorectal adenocarcinoma – mucosal type

Fig. 1 Mucinous adenocarcinoma of the colon confined to the mucosa; overview with areas of mucinous cancer (MC), clear cell change (CC), tubular adenoma (TA) and stalk (ST) (a). High magnification of clear cell change (b) and single cell invasion into the stroma (c, arrow). Ki-67 immunostaining shows marked proliferative activity (d). Mixed intestinal and gastric differentiation of the lesion, as assessed by MUC2 (e) and MUC5AC (f) immunohistochemistry.

Colorectal cancer is defined by invasion through the muscularis mucosae into the submucosal layer. Mucosal changes with cytologic and architectural features of malignancy confined to the mucosa do not have a risk of metastasis, and according to the World Health Organization (WHO) classification these lesions are referred to as high grade intraepithelial neoplasia. We report a 73-year-old woman who underwent colonoscopy after a positive fecal blood test. A pedunculated polyp, measuring 1 cm in diameter, was found in the sigmoid colon and removed. Histologic examination revealed a tubular adenoma with clear cell change and signs of progression to mucinous adenocarcinoma confined to the mucosa (Fig. 1a–c). Immunohistochemistry showed marked proliferative activity (Fig. 1d) and revealed both intestinal and gastric differ-

entiation with expression of MUC2 and MUC5AC, respectively (Fig. 1e,f). There was no evidence of tumor recurrence at follow-up on abdominal sonography, computed tomography, and colonoscopy. The patient remains free of cancer 6 months after the initial diagnosis. Mucinous adenocarcinomas account for 5%–15% of all carcinomas within the colorectum [1]. Our case is the first report of a mucinous adenocarcinoma confined to the mucosal layer. The existence of mucosal colorectal cancer, however, is a matter of debate, which is well illustrated by the differences in views of Western and Eastern pathologists regarding neoplastic colorectal lesions [2]. Thus, in Japan, the diagnosis of colorectal carcinomas is not based on the depth of invasion as in most Western countries but on structural and nuclear criteria.

Consequently, in the guidelines for treatment of colorectal carcinoma of the Japanese Society for Cancer of the Colon and Rectum mucosal cancers have been included as a separate entity for which endoscopic treatment may be sufficient. Although the designation intramucosal carcinoma is currently discouraged by the WHO, it has recently been included in the pragmatic classification of superficial neoplastic colorectal lesions [3,4]. In conclusion, we report the first case of an intramucosal colorectal mucinous adenocarcinoma, which was successfully removed endoscopically.

Competing interests: None

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