A very rare case of submucosal invasive duodenal adenocarcinoma in a patient with a history of radiation therapy

Adenocarcinomas of the small intestine are rare compared with other gastrointestinal carcinomas. They are mostly found situated in the duodenum. Despite an increasing incidence of duodenal carcinomas in recent decades, most such lesions are either intramucosal or deep invasive carcinomas; intermediate invasive cancers in the submucosa are extremely rare, having been described only in a few cases in the Japanese language [1, 2]. Because of the rarity of their incidence, the exact risk of lymph node recurrence for these submucosal tumors is unknown. Therefore, the importance of R0 resection by endoscopic submucosal dissection to obtain a perfect histological assessment is debatable as submucosal invasion usually leads to salvage surgery being performed. In our patient, who had a past history of radiation therapy, endoscopic submucosal dissection was performed (Fig. 1; Video 1), and histological assessment revealed a well-differentiated adenocarcinoma invading the submucosa to a depth of 250 µm (Fig. 2), without any evidence of lymphovascular invasion or tumor budding. This case illustrates that, although the model of the adenoma–carcinoma sequence is believed to apply to the small intestine, as well as to the large intestine, submucosal invasive duodenal carcinomas are extremely rare. In our case, we could not identify an area of abnormal pit pattern suspicious for deep invasion. The patient’s history of radiation therapy could also have facilitated the invasion of this tumor into the submucosa.

Competing interests

The authors declare that they have no conflict of interest.

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Endoscopy_UCTN_Code_CCL_1AB_2AZ_3AB

Fig. 1 Endoscopic narrow-band imaging view of the lesion that was situated in the duodenal bulb.

Fig. 2 Macroscopic appearance of the 4-cm specimen resected by endoscopic submucosal dissection.

Video 1 Resection by endoscopic submucosal dissection of a submucosal invasive duodenal carcinoma.
References


Bibliography

Endoscopy
DOI 10.1055/a-1682-6865
ISSN 0013-726X
published online 2021
© 2021. Thieme. All rights reserved. Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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