Angiosarcoma at the anastomotic site mimicking local recurrence of rectal adenocarcinoma

Fig. 1 Endoscopic appearance of a reddish partially necrotic mass at an anastomotic site after resection of rectal adenocarcinoma, which protrudes irregularly into the lumen, suspicious for local cancer recurrence.

A 76-year-old man was diagnosed with rectal adenocarcinoma in January 2007. The patient underwent neoadjuvant radiochemotherapy followed by low anterior resection with total mesorectal excision. Histology showed foci of residual cancer tissue within the muscularis propria, and clear resection margins. Upon surveillance colonoscopy performed 3 years later, an irregular tumor mass was detected at the anastomosis, raising suspicion of a local cancer recurrence (● **Fig. 1**).

Magnetic resonance imaging showed an intrapelvic tumor (8 cm maximum diameter) diffusely infiltrating the bowel wall (● **Fig. 2**).

Histology revealed a malignant mesenchymal tumor with marked epithelioid cytomorphology and occasional cleft-like spaces, suggestive of vascular differentiation (● **Fig. 3**).

Diagnosis of angiosarcoma was confirmed by immunoreactivity for CD31, whereas markers of epithelial differentiation were negative.

Angiosarcomas occur very rarely in the intestinal tract as either primary or metastatic malignancy [1]. In publications, intestinal angiosarcomas appear only in small series and as occasional case reports [1,2]. In only two patients, tumor occurrence was related to antecedent radiotherapy or chemoradiotherapy [3,4]. One case occurred 8 years after radiotherapy for prostate cancer [3], the other, similar to our case, about 3 years after radiochemotherapy for rectal cancer [4]. Although

Fig. 2 Magnetic resonance imaging (MRI) of intrapelvic tumor, 8 cm maximum diameter, which diffusely infiltrated the wall of the rectum.

Fig. 3 Malignant mesenchymal tumor with cleft-like spaces, indicating: **a** vascular differentiation, **b** marked epithelioid cytomorphology.

ionizing radiation is one of the few known risk factors for angiosarcoma, a large-cohort study on more than 300 000 cancer patients recently questioned this association [5].

In general, intestinal angiosarcomas run a dismal clinical course with high risk of local tumor recurrence and propensity for widespread dissemination [1]. Upon endoscopy, they may easily be mistaken for an epithelial malignancy, especially when

neoplastic growth is seen at an anastomotic site after cancer resection. Endoscopists should be aware of this diagnostic pitfall to avoid delay in the correct diagnosis and ensure timely oncologic treatment of patients with independent secondary tumors.

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