Primary gastric, duodenal, and rectal signet ring cell carcinoma revealed by cutaneous metastasis

We report a particularly interesting case of cutaneous metastases, which revealed three sites of signet ring cell carcinoma. A 50-year-old woman presented with painless cutaneous nodules, along with a change in bowel habit and weight loss. She had no history of rectal bleeding. Skin examination revealed multiple nodules on the left side of her neck (Fig. 1a), below her right breast, on her back in a zoster-like distribution, and in the perineal region (Fig. 1b).

The nodules, which were erythematous and not well-circumscribed, were soft, slightly indurated, and non-mobile. Histopathological examination of the skin nodules revealed diffuse infiltration of the dermis and subcutaneous tissue by tumor cells. Immunohistochemical analysis indicated a diagnosis of secondary tumor and was suggestive of digestive tract origin.

Colonoscopy revealed a congested, elevated rectal mass, between 5 cm and 8 cm from the anal verge, which was causing partial narrowing of the lumen (Fig. 2). Histological examination revealed a signet ring cell adenocarcinoma (Fig. 3).

In view of the histological finding of rectal signet ring cell adenocarcinoma, gastroscopy was performed to exclude a primary gastric tumor. This revealed multiple nodules over the body of the stomach, and within the second part of the duodenum. Histological examination of gastric and duodenal biopsies was compatible with a signet ring cell carcinoma. The patient died 2 weeks later.

Cutaneous metastasis is a relatively uncommon manifestation of visceral malignancies. It mostly occurs late in the course of the disease, but may also be the first presentation of an underlying cancer [1]. Cutaneous metastases are most commonly adenocarcinomas (60%), but 15% are squamous cell carcinomas. Only 6% of cutaneous metastases that are secondary to solid visceral tumors are caused by gastrointestinal carcinomas [2,3]. Signet ring cell carcinoma of the duodenum is extremely uncommon [4]. Our case therefore showed both unusual clinical and

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Fig. 1 Cutaneous metastases in a 50-year-old woman who also presented with change in bowel habit and weight loss: a large erythematous plaque on the left side of the neck; an erythematous lesion in the perineal region.

Fig. 2 Colonoscopy image showing a large rectal mass partially occluding the lumen.

Fig. 3 Rectal biopsies: a hematoxylin and eosin (H&E) staining showed large sheets and aggregates of signet ring cell adenocarcinoma (magnification × 400); b immunohistochemical staining showed that the tumor cells were positive with the pankeratin marker KL1 (magnification × 400).
pathological features that have not been previously described.

Competing interests: None

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