



A tumoral lesion that includes four distinct components: A gastric composite tumor with liver metastasis

To the Editor,

A composite carcinoma is a special tumor in which at least two different malignant cell types are blended. Such tumors have been documented in numerous gastrointestinal organs, but rarely occur in the stomach. Usually, they consist of an adenocarcinoma and neuroendocrine components (1-3). Here, we present a 64-year-old man with a gastric composite tumor including adenocarcinoma, neuroendocrine-, squamous cell-, and clear cell-carcinoma components. To our knowledge, no similar case has been reported in the English language literature to date. In addition to its exceptionality, this case demonstrates the metastases of three distinct components to the liver, which has not been reported previously.

Esophagogastroduodenoscopy performed due to complaints of epigastric pain and weight loss revealed a polypoid lesion in the upper lesser curve of the stomach (Figure 1). A superficial mucosal biopsy showed an adenocarcinoma with neuroendocrine differentiation. A computed tomography scan, as a part of a preoperative survey, showed hypointense nodular lesions in the subcapsular area of the liver. Eventually, a partial gastrectomy with perigastric lymph node dissection, and hepatic wedge resection was performed. Macroscopic examination revealed a protuberant lesion measuring 35x31 mm in the corpus of the stomach, and two nodular lesions measuring 20x17x18 mm and 4x2x2 mm in the subcapsular area of the hepatic resection. In the histopathological examination, the gastric tumor infiltrated the muscular layer without extension to the subserosa. As a striking feature, four distinct tumor components were readily recognizable, demonstrating characteristic focuses of adenocarcinoma, neuroendocrine-, squamous cell-, and clear cell-carcinomas (Figure 2, 3). The hepatic lesions were identified as tu-

mor metastases, displaying squamous, clear cell, and neuroendocrine cell differentiation. Neuroendocrine components showed positive immunoreactivity with synaptophysin and CD56. The squamous cell compo-

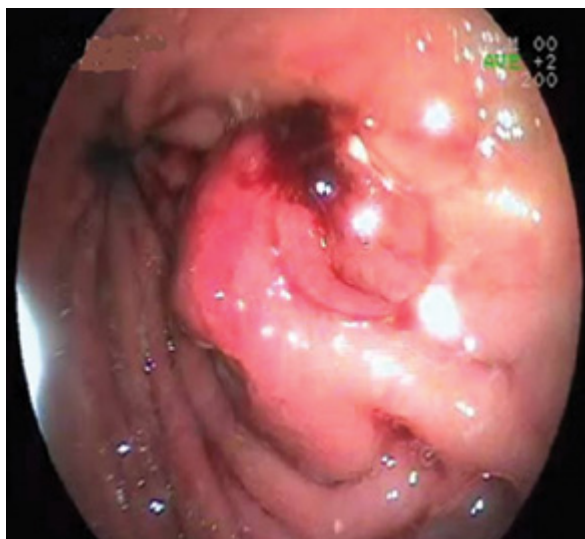


Figure 1. Upper endoscopy showing a polypoid mass in the body of the stomach.

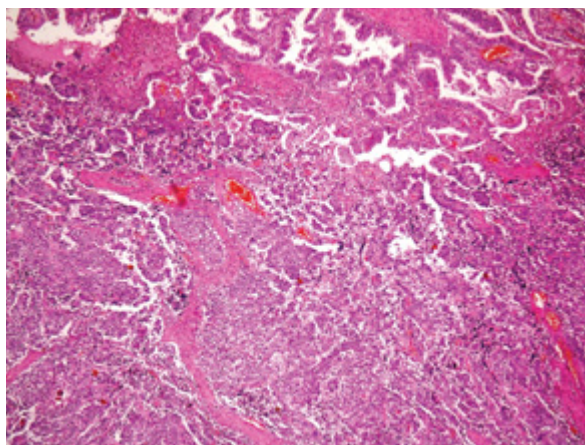


Figure 2. Adenocarcinoma with neuroendocrine carcinoma component (hematoxylin and eosin, x100).

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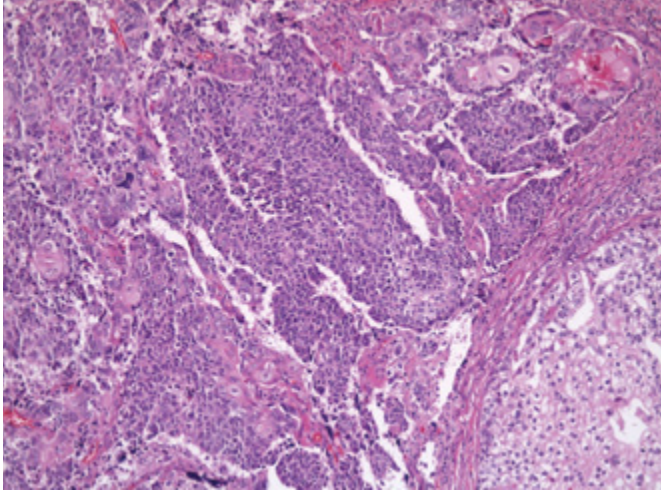


Figure 3. Representative section of the tumor showing the neuroendocrine, squamous cell, and clear cell components (hematoxylin and eosin, ×200).

nent was demonstrated with positive cytokeratin 5/6 (CK5/6) antibody staining. Clear cell-carcinoma and adenocarcinoma components were positive for cytokeratin 7 (CK7).

Adenocarcinoma and neuroendocrine-carcinomas are each well known to occur in the background of chronic atrophic gastritis; however, the concurrence of both adenocarcinoma, neuroendocrine- and squamous cell-carcinoma together in the gastrointestinal tract is extremely rare. According to Fujiyoshi's classification of mixed endocrine and non-endocrine epithelial tumors of the stomach, this case was diagnosed as a composite tumor (4).

In our case, the majority of the metastatic component was squamous cell carcinoma. We considered the development of this component as due to the metaplastic transformation of an adenocarcinoma, as supported by several authors (5). Another hypothesis is that a particular histological type of gastric cancer

might arise from stem cells, which may be the subject of future research.

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Informed Consent: Written informed consent was obtained from patient who participated in this report.

Peer-review: Externally peer-reviewed.

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