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Short communication

Gastric Neuroendocrine Carcinoma

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Received date: March 18, 2025; **Accepted date:** March 28, 2025; **Published date:** April 22, 2025

Citation: Ling Lu, Wei Liu, (2025), Gastric Neuroendocrine Carcinoma, *Clinical Research and Clinical Trials*, 12(3); **DOI:**10.31579/2693-4779/265

Abstract:

A 67-year-old woman presented with a 1-month history of abdominal pain. She received appendectomy due to appendicitis several years ago. Except for a decreased hemoglobin level of 87 g/L (normal, 130–175 g/L), no significant laboratory abnormalities were found.

Keywords: neuroendocrine; abdominal pain; gastrointestinal

Summary

Gastric Neuroendocrine Carcinoma

A 67-year-old woman presented with a 1-month history of abdominal pain. She received appendectomy due to appendicitis several years ago. Except for a decreased hemoglobin level of 87 g/L (normal, 130–175 g/L), no significant laboratory abnormalities were found. Upper gastrointestinal endoscopy showed a giant well-circumscribed elevated ulcerative lesion in gastric fundus with irregularly neighboring mucosa, which overlay a 1-cm area of redundant gastric folds (Figure 1A) 1.

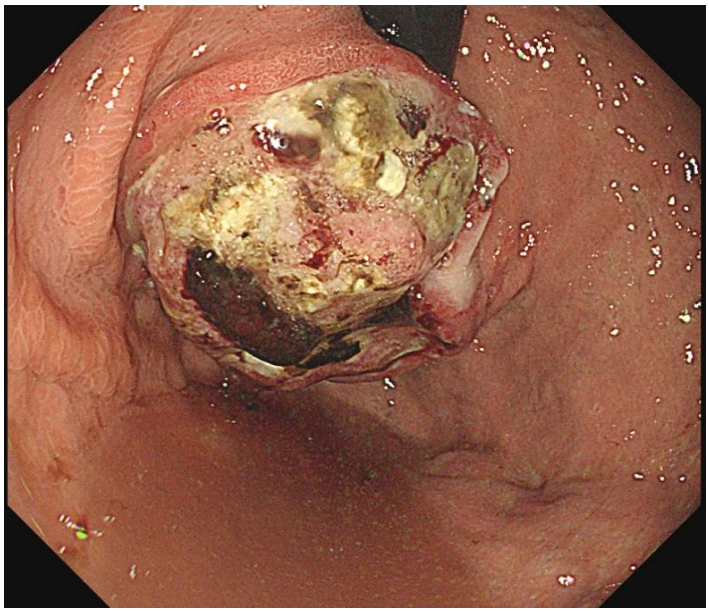

Figure 1(A)

The lesion had a hard texture covering with dirty moss and was well-defined by contrast-enhanced abdominal computed tomography (Figure 1B).

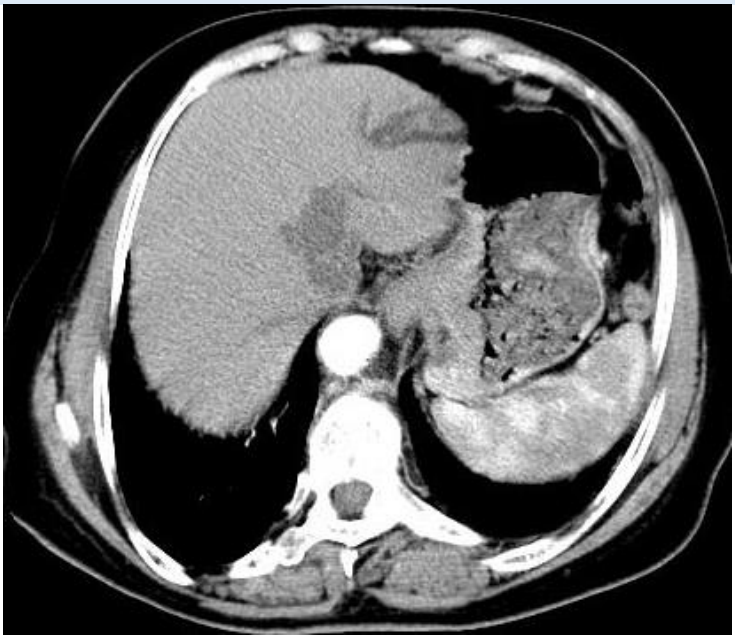

Figure 1(B)

finding no evidence of any extragastric lesions. Colonoscopy examination was normal. Proximal gastrectomy and esophagogastric anastomosis with celiac regional lymph nodes dissection were performed. Macroscopic examination of the resected specimen confirmed the ulcerative tumor measuring 6.5 × 6.5 cm in diameter. Histopathological examination identified diffuse proliferation of poorly differentiated, large-sized tumor cells arranged in sheets, which infiltrated to outer serosal layer of the stomach and esophageal wall (Figure 1C).

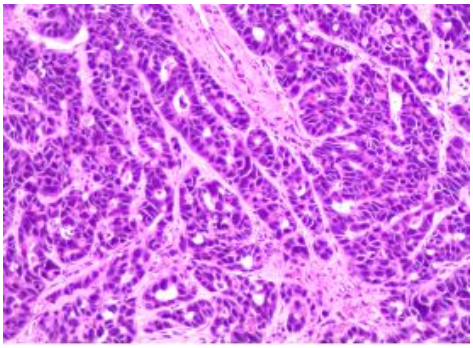

Figure 1(C)

Immunohistochemical staining showed positive immunostaining for CK7 (Figure1D), CD56 (Figure 1E),

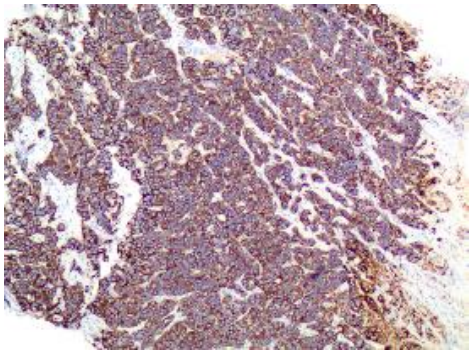

Figure 1(D)

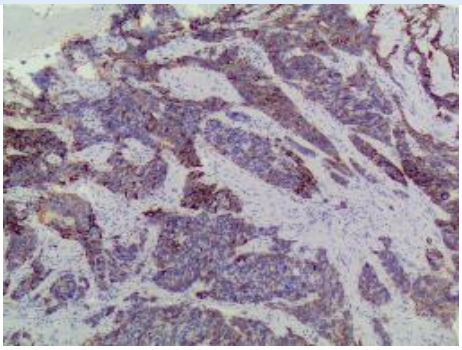

Figure 1(E)

chromogranin A (CgA, Figure 1F), and synaptophysin (Syn, Figure 1G),

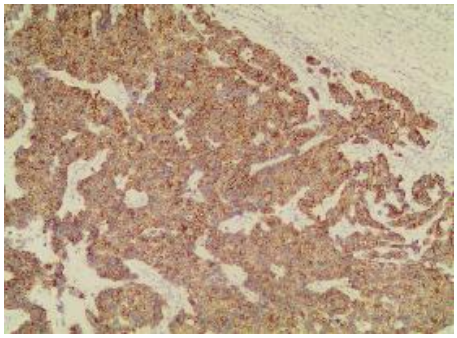

Figure 1(F)

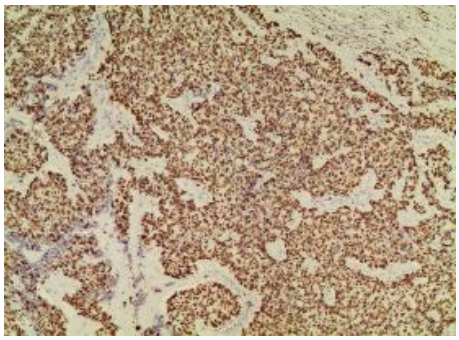

Figure 1(G)

consistent with neuroendocrine carcinoma, which was further featured by a high proliferation index Ki67 around 70% in neoplastic cells (Figure 1H).

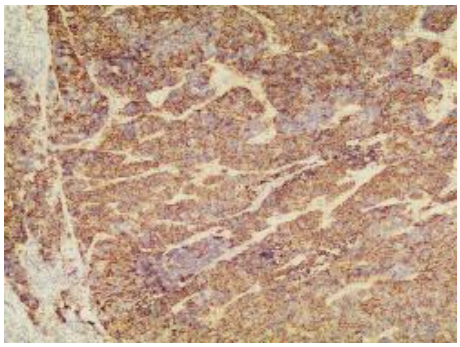

Figure !(H)

Perigastric lymph nodes invasion was also demonstrated. Finally, the patient received the diagnosis of gastric neuroendocrine carcinoma with lymph node metastases. Gastric neuroendocrine carcinoma is a rare disease, commonly invades the lymphatic lumens and usually metastasizes to the lymph nodes, has strong malignant potential associated with an extremely poor prognosis.[1] Characteristic endoscopic findings in white-light images include adherent white coat, submucosal tumor-like marginal elevation, and ulceration with a distinct border.[2] There is no clear diagnosis and treatment

guidelines because of its rarity.[3] The patient received postoperative chemotherapy and immunotherapy, showing no sign of recurrence 6 months after the surgery. **(Figure 1. A.)**

Upper gastrointestinal endoscopy showed a giant well-circumscribed elevated ulcerative lesion in gastric fundus with irregularly neighboring mucosa. B. Contrast-enhanced abdominal computed tomography review. C. Histopathological examination identified diffuse proliferation of poorly differentiated, large-sized tumor cells arranged in sheets. Immuno-histochemical staining showed positive immunostaining for CK7 (Figure D), CD56 (Figure E), chromogranin A (CgA, Figure F), and synaptophysin (Syn, Figure G), consistent with neuroendocrine carcinoma, which was further featured by a high proliferation index Ki67 around 70% in neoplastic cells (Figure H).

Conflicts of Interest:

The authors have no conflicts of interest to declare.

Ethical Statement:

The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Written informed consent was obtained from the patient for publication of this "GI Image". Board institutional approval was not required.

Author's contributions

Collection of data and writing: Wei Liu.

Manuscript preparation: Ling Lu.

Final approval of the manuscript: Ling Lu.

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DOI:10.31579/2693-4779/265