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LETTER TO THE EDITOR

Small cell neuroendocrine carcinoma of the esophagus

To the Editor,

Esophageal small cell neuroendocrine carcinoma (SCNEC) is extremely rare, representing 0.04–4.6% of all gastrointestinal neuroendocrine neoplasms (NENs) and 1–2.8% of esophageal cancers [1,2].

A 48-year-old female suffered from dysphagia and foreign body sensation. An initial diagnosis was a 3.3 cm ×

3.3 cm protruding esophageal cancer in the middle esophagus and locoregional metastatic lymphadenopathy based on gastrointestinal endoscopy and positron emission tomography/computed tomography (PET/CT; Fig. 1). Total esophagogastrostomy and bypass, wedge resection of the right lung, and right radical neck dissection were performed. Esophageal specimens revealed invasion of a small cell carcinoma into the

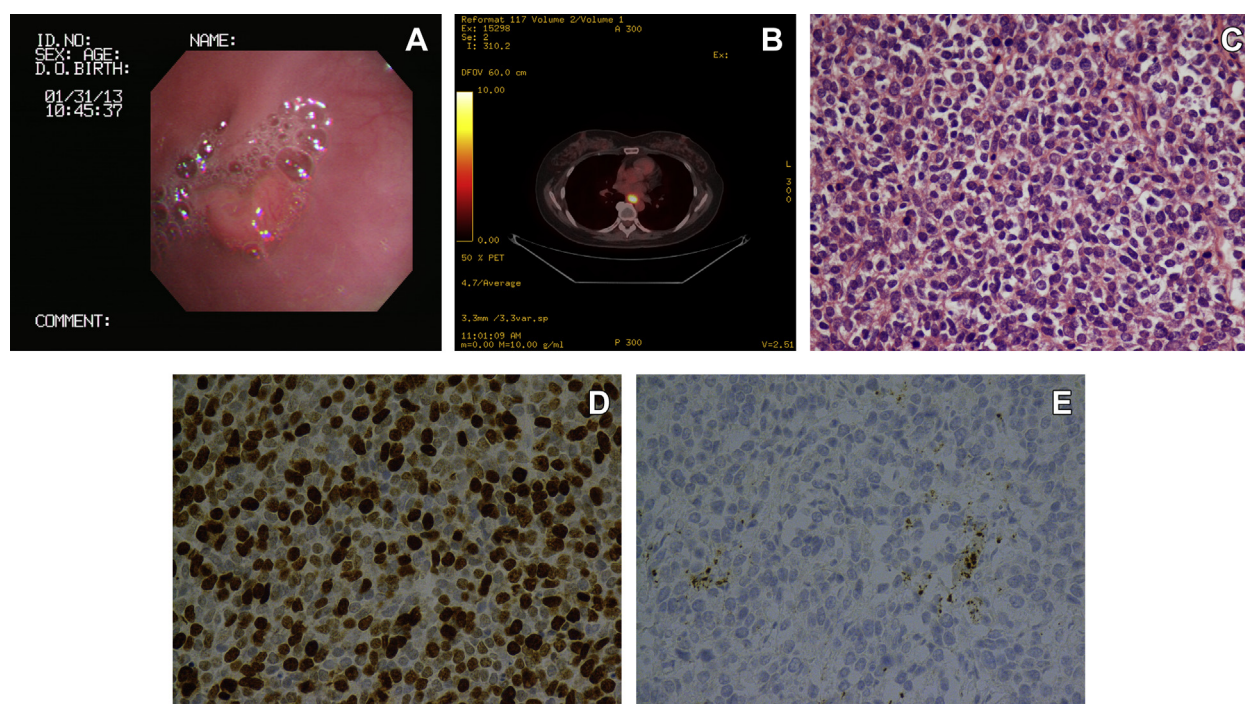


Figure 1. A 48-year-old female. (A) Endoscopy reveals an elevated submucosal mass covered with normal mucosa in the esophagus. (B) Positron emission tomography/computed tomography revealed fluorodeoxyglucose accumulation in the lesion of the middle esophagus. Resected surgical specimen. (C) The tumor cells have scant cytoplasm, hyperchromatic nuclei, and absent or inconspicuous nucleoli (hematoxylin–eosin stain, original magnification 400×). (D) The scattered tumor cells show positive staining for synaptophysin (original magnification, 400×). (E) More than 20% of the nuclei are positive for Ki-67 (original magnification, 400×).

Conflicts of interest: All authors declare no conflicts of interest.

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muscularis propria and lymphovascular structure. Immunohistochemical staining showed positive for cytokeratin (CK), neuron-specific enolase (NSE), synaptophysin, CD56, and Ki-67 > 20%. Pathological diagnosis was esophageal SCNEC, pathological stage pT2N1. In addition, the other incidental 0.5 cm acinar (100%) minimally invasive adenocarcinoma, histological Grade II, sat in the right lower lobe of the lung. Unfortunately, she experienced multiple metastases at the liver and lymph nodes of the neck 1 year later. She received radiotherapy and refused chemotherapy for further treatment.

NENs are defined as epithelial neoplasms with predominant neuroendocrine differentiation, arising throughout the body. The histologic grading system of the 2010 World Health Organization (WHO) classification for digestive system NENs divides them into low-grade (G1, Ki67 < 2%), intermediate-grade (G2, Ki67 2–20%) neuroendocrine tumors, and high-grade (G3, Ki67 > 20%) neuroendocrine carcinomas (NECs, large- or small-cell type) [3]. SCNEC is indistinguishable from small cell lung cancer (SCLC) in histological and immunohistochemical features. To diagnose a tumor as SCNEC, it is essential to identify typical small cell carcinoma histology and immunohistochemical evidence of epithelial differentiation. Although positive staining for neuroendocrine markers is not necessary, it makes a supplementary contribution to the diagnosis [3].

The optimal treatment for esophageal SCNEC has not yet been established. The few reported cases have been mostly treated by esophagogastrectomy [4]. However, the outcome for esophageal SCNEC treated with surgery alone is extremely poor due to a high likelihood of disease recurrence, even following complete resection. The median survival of patients after resection was 3.1–20 months [1]. Based on the similarity, both in behavior and histopathological characteristics of SCLC, combined chemotherapy with platinum-based doublets and etoposide, one of the standard regimens employed for the treatment of SCLC, has been used widely for the treatment of extrapulmonary SCNEC [2]. Other alternative chemotherapy regimens based on amrubicin, oxaliplatin, capecitabine, or taxanes have been reported [5]. However, most patients eventually relapse after chemotherapy and have a poor prognosis. Radiotherapy alone is insufficient to improve the survival of SCNEC. However, a multidisciplinary treatment approach consisting of resection, chemotherapy, and radiation therapy is recommended for the treatment of extrapulmonary SCNEC according to the National Comprehensive Cancer Network (NCCN) guidelines for SCLC [3].

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