

Esophageal high-grade Neuroendocrine Carcinoma with cerebral Metastases

Cun-Jin Ge^{1,2}, Bo-Juan Lang^{3,4}, Wei Liu^{1,2}

¹Institute of Digestive Disease, China Three Gorges University, Yichang, China, ²Department of Gastroenterology, Yichang Central People's Hospital, Yichang, China, ³Institute of Pathology, China Three Gorges University, Yichang, China, ⁴Department of Pathology, Yichang Central People's Hospital, Yichang, China

INTRODUCTION

A 55-year-old man was transferred to our hospital with headache and mental status that had progressed over the preceding 1 week. Four weeks before presentation, he had presented to the local community hospital with a 1-month history of progressive dysphagia. Gastroscopy revealed an ulcerated tumor on the left anterior wall of the mid esophagus [Figure 1a], about 28 cm from the incisor teeth, and findings on biopsy were consistent with high-grade neuroendocrine carcinoma (HGNEC) [Figure 1b and c]. Computed tomography of

the chest, abdomen, and pelvis confirmed extensive multi-organ metastases, including several lesions in the liver and multiple skeletal lesions in addition to the mass in the lymph nodes. Considering the recent variations in the patient's mental status, gadolinium-enhanced magnetic resonance imaging of the head was assessed and confirmed numerous lesions, some with ring enhancement, but without substantial edema and mass effect [Figure 1d]. Cerebral metastases were considered to be the most plausible explanation, but the differential diagnosis of the brain lesions also consisted of tuberculosis, bacterial abscesses, and neurocysticercosis. Direct microbiologic detection and cultures were negative for tuberculosis and the human immunodeficiency virus. A diagnosis of primary esophageal HGNEC with cerebral metastases was made. Esophageal HGNEC is a rare, aggressive disease with lack of specific clinical symptoms,^[1-3] which may cause a diagnostic delay, worsening the prognosis.^[4-6] Numerous cases have been reported in the literature, without a consensus on the assessment and management.^[7-9] Therapeutic approaches of primary esophageal HGNEC are a reflection of tumor location, type, grade, and stage.^[10-12] The patient's family decided to pursue palliative care, and the patient passed away 2 weeks later.

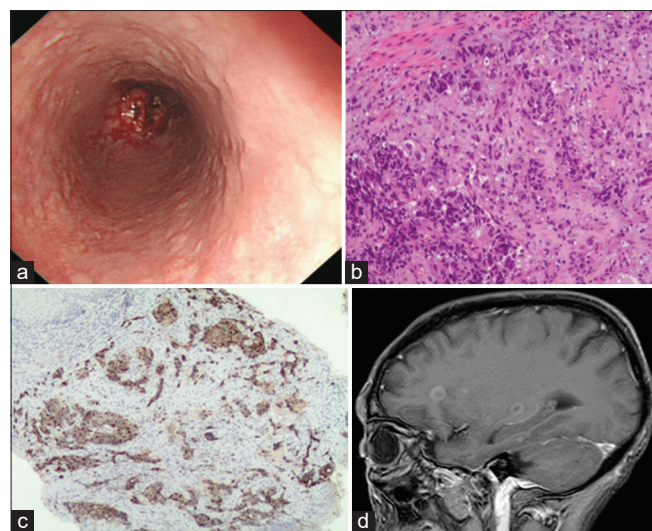


Figure 1: Esophageal high-grade neuroendocrine carcinoma with cerebral metastases. (a) Esophageal neoplasm in gastroscopy; (b) hematoxylin-eosin staining; (c) immunohistochemistry staining of Chromogranin A; (d) gadolinium-enhanced magnetic resonance imaging of cerebral metastases

ACKNOWLEDGMENTS

Funding: This work was supported by National Natural Science Foundation of China (31600134).

FOOTNOTE

Conflicts of Interest: The authors have no conflicts of interest to declare.

Address for correspondence:

Wei Liu, Institute of Digestive Disease, China Three Gorges University, 8 Daxue Road, Yichang 443000, China.

© 2020 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

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 “Images in Clinical Medicine.”

REFERENCES

1. Maru DM, Khurana H, Rashid A, Correa AM, Anandasabapathy S, Krishnan S, *et al.* Retrospective study of clinicopathologic features and prognosis of high-grade neuroendocrine carcinoma of the esophagus. *Am J Surg Pathol* 2008;32:1404-11.
2. Hjerpe SJ, Rahim U, Usman MS, Ansari A, Chowdhury W, Lodhi MU, *et al.* High-grade non-small cell neuroendocrine carcinoma of the esophagus. *Cureus* 2018;10:e2416.
3. Giannetta E, Guarnotta V, Rota F, de Cicco F, Grillo F, Colao A, *et al.* A rare rarity: Neuroendocrine tumor of the esophagus. *Crit Rev Oncol Hematol* 2019;137:92-107.
4. Alese OB, Jiang R, Shaib W, Wu C, Akce M, Behera M, *et al.* High-grade gastrointestinal neuroendocrine carcinoma management and outcomes: A national cancer database study. *Oncologist* 2019;24:911-20.
5. Nakao Y, Okino T, Yamashita YI, Taki K, Nakagawa S, Matsumoto K, *et al.* Case report of aggressive treatments for large-cell neuroendocrine carcinoma of the esophagus. *Int J Surg Case Rep* 2019;60:291-5.
6. Hamilton K, Chiappori A, Olson S, Sawyers J, Johnson D, Washington K. Prevalence and prognostic significance of neuroendocrine cells in esophageal adenocarcinoma. *Mod Pathol* 2000;13:475-81.
7. Huang Q, Wu H, Nie L, Shi J, Lebenthal A, Chen J, *et al.* Primary high-grade neuroendocrine carcinoma of the esophagus: A clinicopathologic and immunohistochemical study of 42 resection cases. *Am J Surg Pathol* 2013;37:467-83.
8. Kuriry H, Swied AM. Large-cell neuroendocrine carcinoma of the esophagus: A case from Saudi Arabia. *Case Rep Gastroenterol* 2015;9:327-34.
9. Schizas D, Mastoraki A, Kirkilesis GI, Sioulas AD, Papanikolaou IS, Misiakos EP, *et al.* Neuroendocrine tumors of the esophagus: State of the art in diagnostic and therapeutic management. *J Gastrointest Cancer* 2017;48:299-304.
10. Egashira A, Morita M, Kumagai R, Taguchi KI, Ueda M, Yamaguchi S, *et al.* Neuroendocrine carcinoma of the esophagus: Clinicopathological and immunohistochemical features of 14 cases. *PLoS One* 2017;12:e0173501.
11. Deng HY, Ni PZ, Wang YC, Wang WP, Chen LQ. Neuroendocrine carcinoma of the esophagus: Clinical characteristics and prognostic evaluation of 49 cases with surgical resection. *J Thorac Dis* 2016;8:1250-6.
12. Yang L, Sun X, Zou Y, Meng X. Small cell type neuroendocrine carcinoma colliding with squamous cell carcinoma at esophagus. *Int J Clin Exp Pathol* 2014;7:1792-5.

How to cite this article: Ge C, Lang B, Liu W. Esophageal high-grade Neuroendocrine Carcinoma with cerebral Metastases. *J Clin Res Oncol* 2020;3(2):1-2.