A Rare Case of Pulmonary Lymphoepithelial-Like Carcinoma

Um Caso Raro de Carcinoma Pulmonar Linfoepitelial

Keywords: Carcinoma, Non-Small-Cell Lung; Lymphoid Tissue
Palavras-chave: Carcinoma Pulmonar de Células não Pequenas; Tecido Linfoide

Dear Editor,

Pulmonary lymphoepithelial-like carcinoma (PLELC) is a rare subtype of non-small cell lung cancer (NSCLC), representing < 1% of all lung cancers. Epstein-Barr virus (EBV) infection is the most common cause.[1] It is generally diagnosed in middle-aged, non-smoking women of Asian descent.[2]

The authors present the case of a 71-year-old woman, born in Macau, non-smoker, who was admitted to the emergency department due to productive cough, fever, and an episode of hemoptoic sputum in the previous three weeks. Chest computed tomography (CT) with contrast, excluded active hemorrhage and identified a spiculated lingular nodule. In the oncology clinic, 18F-FDG PET/CT confirmed the presence of a solid lingular nodule, measuring 12.5 X 9 mm, hypermetabolic (SUV max: 1.4) consistent with a malignant neoplastic lesion. A contrast-enhanced magnetic resonance imaging (DCE-MRI) excluded secondary lesions. Therefore, a clinical stage IA (cT1N0M0) was defined, according to the 8th edition of the American Joint Committee on Cancer (AJCC) staging manual.

Given the inaccessibility of the lesion by bronchoscopy or transbronchial lung biopsy, an extemporaneous biopsy was performed, as well as lingulectomy and mediastinal lymphadenectomy using uniportal video-assisted thoracoscopic surgery. The examination of the wedge resection surgical specimen identified a PLELC with invasion of the visceral pleura and, therefore, a pathological stage IB (pT2aN0M0), according to the 8th edition of the AJCC staging manual. Immunohistochemistry revealed positivity for CK5/6, p40, TTF1 and EBV encoded RNA; PD-L1 40%. Plasma EBV-DNA was negative and next generation sequencing had no target molecular mutations. Adjuvant chemotherapy with platinum doublet was started, having completed four cycles. During chemotherapy, the patient presented with anemia grade 1 (mild symptoms), according to the definition issued by the Common Terminology Criteria for Adverse Events version 5.0. The patient is currently under surveillance.

Although PLELC is a rare malignant tumor, it has a better prognosis than that of other NSCLC. Most patients tend to present at early and resectable stages and surgical resection is a common primary approach with a curative intent. Therefore, in the case of a patient of Asian descent, non-smoker, with non-specific respiratory symptoms and chest CT evidence of a solitary mass/nodule,[3] it is important to consider PLELC in the list of differential diagnoses, since it is a subtype of NSCLC that, if diagnosed and treated in a timely manner, has a high survival rate.[4,5]

AUTHOR CONTRIBUTIONS

MT: Data acquisition, writing and critical review of the manuscript.

MG, GS, LF: Writing and critical review of the manuscript.

All authors approved the final version to be published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

PATIENT CONSENT

Obtained.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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REFERENCES

1. Wei J, Liu Q, Wang C, Yu S. Lymphoepithelioma-like hepatocellular carcinoma without Epstein-Barr virus infection: A case report and a review of the literature. Indian J Pathol Microbiol. 2015;58:550-3.
2. Liang Y, Wang L, Zhu Y, Lin Y, Liu H, Rao H, et al. Primary pulmonary lymphoepithelioma-like carcinoma: fifty-two patients with long-term follow-up. Cancer. 2012;118:4748-58.
3. Zhou L, Liu XY, He Y, Li LT, Zhang SJ. Pulmonary lymphoepithelioma-like carcinoma: a case report with emphasis on computed tomography findings. Medicine. 2021;100:e24453.
4. He J, Shen J, Pan H, Huang J, Liang W, He J. Pulmonary lymphoepithelioma-like carcinoma: a surveillance, epidemiology, and end results database analysis. J Thorac Dis. 2015;7:2330-8.
5. Lin L, Lin T, Zeng B. Primary lymphoepithelioma-like carcinoma of the lung: an unusual cancer and clinical outcomes of 14 patients. Oncol Lett. 2017;14:3110-6.

Mariana TAVARES✉[1], Marcos OLIVEIRA[1,2], Gonçalo SAMOUCO[1], Luís FERREIRA[1,2]
1. Department of Pulmonology. Hospital Sousa Martins. Unidade Local de Saúde da Guarda. Guarda. Portugal.
2. Faculdade de Ciências da Saúde. Universidade da Beira Interior. Covilhã. Portugal.
✉ **Autor correspondente:** Mariana Tavares. mari.tavares.cardoso@gmail.com
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