

Clinical Image

Pulmonary Metastasis of Malignant Peripheral Nerve Sheath Tumor with Extensive Calcification

Wei Weng^a, Xiaoxi Jin^b, Yaomeng Chen^{b,*}

^a Department of Radiology, The Third Affiliated Hospital of Wenzhou Medical University, Wenzhou 325000, China

^b Department of Radiology, Wenzhou People's Hospital, Wenzhou 325000, China

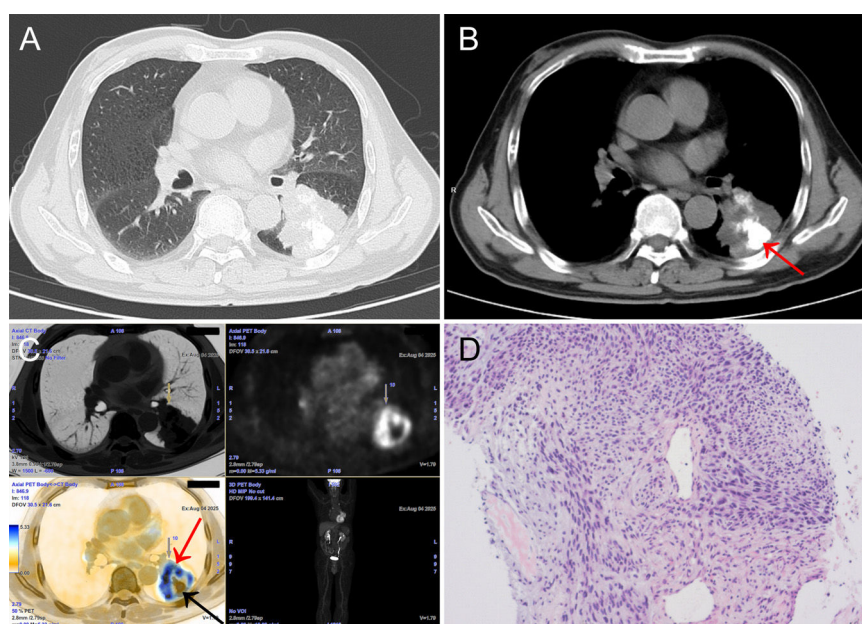


Fig. 1. (A, B) Chest CT: An irregular mass is seen in the lower lobe of the left lung, measuring 57 mm × 54 mm, with central patchy calcification (red arrow). (C) Axial PET-CT fusion image: A hypermetabolic mass in the lower lobe of the left lung with an SUV_{max} of 5.8. The high metabolic area corresponds to the soft tissue component (red arrow), while the calcified area shows no metabolism (black arrow). (D) Pathological result: Malignant peripheral nerve sheath tumor with calcification.

A 67-year-old male presented with a 2-year history of cough and sputum. Three years ago, the patient underwent surgery for a malignant peripheral nerve sheath tumor (MPNST) located on the sole of the foot. Cytokeratin 19 fragment was elevated at 5.6 ng/ml. Chest CT revealed an irregular mass in the lower lobe of the left lung with extensive central calcification (Fig. 1A and B). PET-CT showed the mass had high glucose metabolism with an SUV_{max} of 5.8 (Fig. 1C). And the CT-guided biopsy indicated MPNST with calcification (Fig. 1D). The final diagnosis was MPNST with pulmonary metastasis and calcification. The patient was referred to a specialized hospital for further comprehensive treatment. MPNST is a rare soft tissue sarcoma originating from peripheral nerve sheath cells, with an annual incidence of about 0.001%. It predominantly occurs in adults aged 20–50 years, with the most common primary sites being the limbs (approximately 40%) [1]. Extensive calcification in pulmonary metastasis of MPNST is extremely rare, and the formation of large calcific foci suggests a prolonged and slow disease process, which contradicts the conventional understanding of malignant tumors progressing rapidly.

* Corresponding author.
E-mail address: zjchenyaomeng@126.com (Y. Chen).

Author contribution

Wei Weng contributed to the acquisition and analysis of data; Xiaoxi Jin and Yaomeng Chen contributed to drafting the manuscript and preparing the figures.

Ethical disclosures

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Artificial intelligence involvement

No artificial intelligence tools or technologies were used in the generation of this paper.

Funding

None.

Conflict of interest

The authors declare no conflict of interest.

Reference

- [1] Bai M, Govindaraj V, Chauhan AS, Srinivas BH, Sree Rekha J, Narenchandra V. Metastatic malignant peripheral nerve sheath tumor. A diagnostic surprise. Monaldi Arch Chest Dis 2021;91(2):1658.