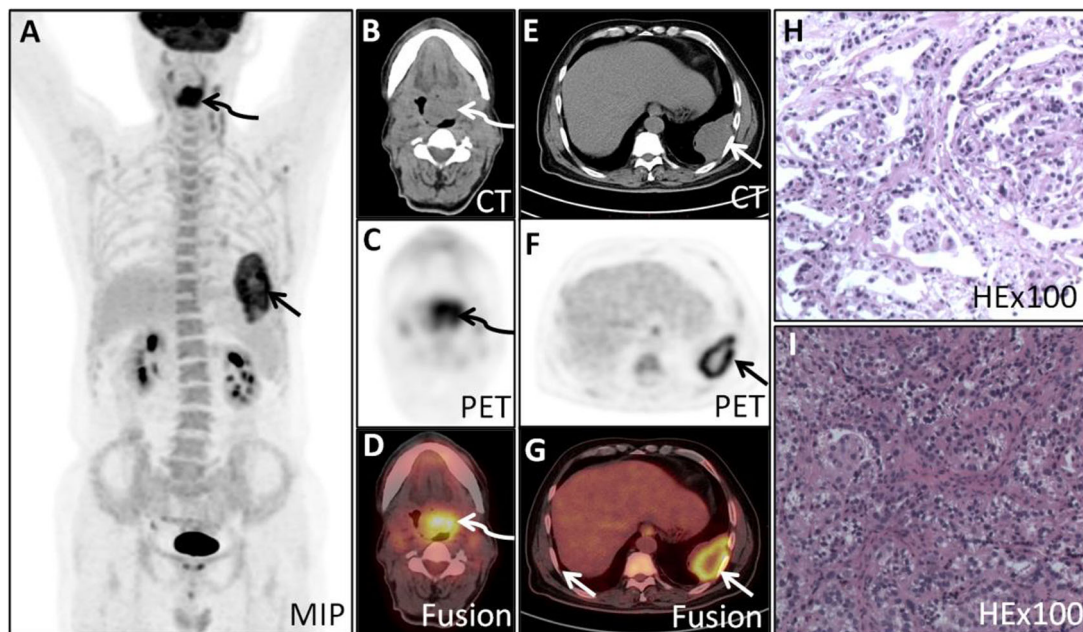




## Tongue metastasis was the first sign of malignant pleural mesothelioma detected by PET/CT

Peng Xie<sup>1</sup> · Wei Wang<sup>2</sup> · Jigang Yang<sup>2</sup>

Received: 13 November 2019 / Accepted: 21 January 2020 / Published online: 29 January 2020  
© Springer-Verlag GmbH Germany, part of Springer Nature 2020



A 63-year-old man presented with a 3-month history of gradually aggravated dysphasia. Physical examination revealed a grey-white, firm and tender mass in the root of the tongue. <sup>18</sup>F-FDG PET/CT was employed to further assess the lingual lesion. The maximum intensity projection (MIP) image (A)

showed abnormally elevated FDG activity in the region of neck (curved arrow) and an additional focus of abnormally increased <sup>18</sup>F-FDG activity in the left lower chest (arrow). Transaxial images demonstrated a large focus of increased activity of the neck corresponding to the known lingual lesion with SUVmax 11.2 (curved arrows, B–D). The FDG-avid lesion in the left lower chest corresponded to a large pleural-based soft tissue mass measured approximately 7.3 × 4.0 cm on the CT images, with heterogeneous intense FDG activity and a central photopenic necrosis, SUVmax of 10.0 (arrows, E–G). We obtained additional patient's history which revealed his exposure to asbestos for approximately 5 years, with no other pulmonary disease or malignancy history.

Therefore, biopsies of the lingual mass and chest mass were both performed, and confirmed the diagnosis of malignant pleural mesothelioma (H) with tongue metastasis (I).

This article is part of the Topical Collection on Oncology - Chest

✉ Jigang Yang  
13681221974@163.com

<sup>1</sup> Department of Nuclear Medicine, The Third Hospital, Hebei Medical University, Shijiazhuang, Hebei, People's Republic of China

<sup>2</sup> Department of Nuclear Medicine, Beijing Friendship Hospital Affiliated to Capital Medical University, No. 95, Yong-An Road, Beijing 100050, People's Republic of China

Tongue metastasis from malignant pleural mesothelioma was reported previously; however, there was no report of the tongue metastasis as the first presenting symptom [1, 2]. In our case, the initial chief complaint was tongue mass, with an additional PET/CT finding of the primary malignant pleural mesothelioma in the left chest, which is unexpected and very unique.

### Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Informed consent** Informed consent was taken from the patient for publication.

### References

1. Kirke D, Horwood K, Wallwork B. Floor of mouth and tongue metastasis from malignant pleural mesothelioma. *ANZ J Surg*. 2010;80: 556–8.
2. Vazquez MV, Selvendran S, Cheluvappa R, et al. Peritoneal mesothelioma metastasis to the tongue - comparison with 8 pleural mesothelioma reports with tongue metastases. *Ann Med Surg (Lond)*. 2015;5:101–5.

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.