



Bronchial inflammatory granulation after endobronchial ultrasound-guided transbronchial needle aspiration and immunotherapy

Huoqiang Wang¹ · Fuqiang Shao² · Qiang Li¹ · Xiaodong Wu¹ · Lei Jiang¹

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A 41-year-old man with a newly detected lung tumour by CT underwent staging ¹⁸F-FDG PET/CT, which revealed intense uptake in the left upper pulmonary lesion (**a arrowhead**) and hypermetabolic mediastinal lymph nodes 4 L (**a large arrow**) and 5 (**a small arrow**). The pathology was adenocarcinoma following endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) of lymph node 4 L, which prompted chemotherapy combined with pembrolizumab. However, during two cycles of therapy, the patient suffered a worsening cough. A repeat PET/CT scan was performed to evaluate therapeutic efficacy, which demonstrated a good response of the

pulmonary lesion and lymph node 5. Conversely, lymph node 4 L showed an increase in size and ¹⁸F-FDG avidity (**b–e large arrows**). Unexpectedly, a new small nodule was visualized in the tracheal wall around the puncture site (**c–e curly arrows**). In addition, multiple sites of intramuscular ¹⁸F-FDG accumulation were observed, which were related to the worsening cough. The nodule was ablated with high-frequency electrocoagulation under bronchoscopic guidance (**f, g curly arrow**), and pathology confirmed inflammatory granulation. Subsequently, the patient's cough disappeared, and follow-up bronchoscopy showed good healing of the operative area (**h**).

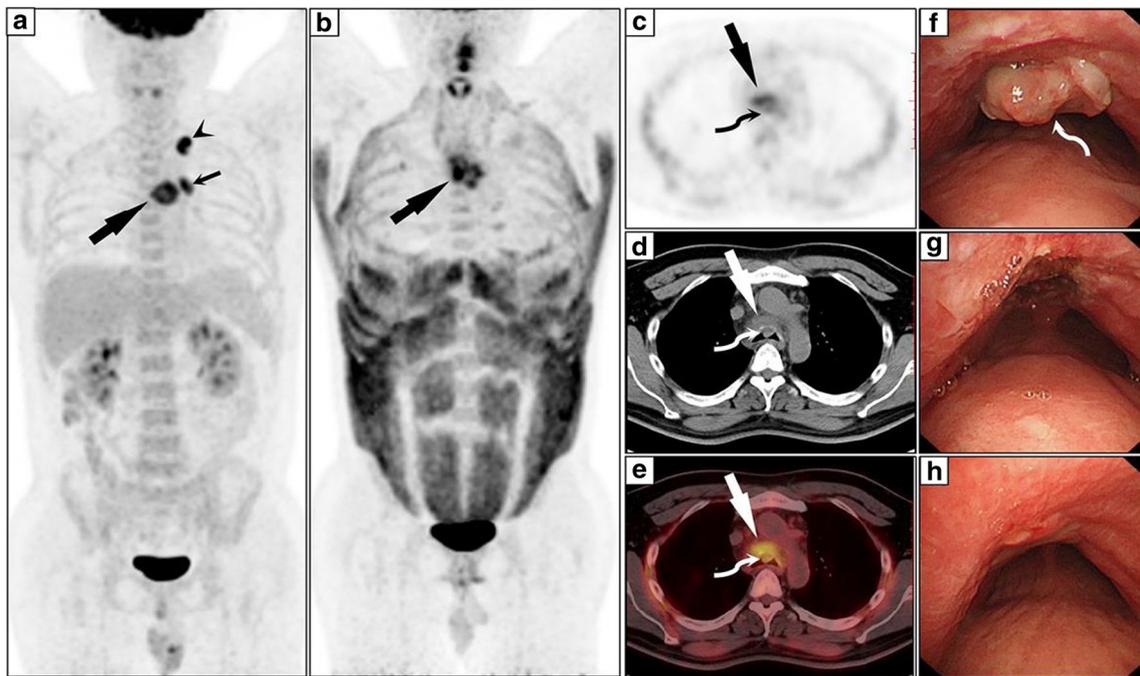
Huoqiang Wang and Fuqiang Shao contributed equally to this work.

✉ Lei Jiang
leijiang1031@163.com

¹ Department of Nuclear Medicine, Shanghai Pulmonary Hospital, Tongji University School of Medicine, 507 Zhengmin Road, Shanghai 200433, China

² Department of Nuclear Medicine, Zigong First People's Hospital, Zigong City 643200, Sichuan Province, China

Endobronchial inflammatory polyp is a rare complication of EBUS-TBNA. One cause could be extension of inflammation through a break in the bronchial mucosa created by EBUS-TBNA [1, 2]. In this particular patient, inflammatory granulation may also have been associated with immunotherapy of pembrolizumab, which may have been aggravated an injury caused by EBUS-TBNA promoting granulation formation [3, 4].



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