Solitary Nodular Pure Bronchioloalveolar Carcinoma

Marc Pusztazeri^a Maria-Victoria Orcurto^b Sabine Schmidt^c
Thorsten Krueger^d

^aPathology, ^bNuclear Medicine, ^cRadiology and ^dThoracic Surgery Divisions, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland

A 75-year-old female nonsmoker was investigated for an ovarian mass. A CT scan showed a 1.8-cm incidental nodule in the right upper lobe (posterior segment), with spiculated borders, reaching the pleura. Its center was discretely excavated. PET/CT fusion, CT and PET scan showed faint FDG uptake by the nodule (fig. 1). Following a CT-guided biopsy of the nodule, a right upper lobe resection was performed. Macroscopic examination showed a 1.4-cm subpleural nodule with well-defined but

irregular borders (fig. 2). It was histologically diagnosed as a pure nonmucinous bronchioloalveolar carcinoma (BAC) (fig. 3). The patient was alive without signs of tumor recurrence 6 months later. BAC is known for low FDG uptake presumed to be secondary to the lower proliferation rate of these tumors [1]. Particularly low metabolic activity is observed in pure BAC, unifocal and mucin-containing tumors [2]. Furthermore, in small lesions activity is underestimated due to partial volume effect.

Fig. 1. Axial images of PET/CT fusion, CT and PET showing only faint FDG uptake by the nodule (arrow) identified on CT. Standardized uptake values (SUV_{max}) of the nodule and normal lung parenchyma were 0.9 and 0.6 g/ml, respectively.

Fig. 2. Macroscopy of the nodule (arrow).

Fig. 3. Histology of the nodule showing atypical nonmucinous cells growing exclusively along the lining of the alveolar walls.

References

- 1 Raz DJ, Kim JY, Jablons DM: Diagnosis and treatment of bronchioloalveolar carcinoma. *Curr Opin Pulmon Med* 2007;13:290–296.
- 2 Yap CS, Schiepers C, Fishbein MC, et al: FDG-PET imaging in lung cancer: how sensitive is it for bronchioloalveolar carcinoma? *Eur J Nucl Med Mol Imaging* 2002;29:1166–1173.