A 60-year-old man came to the emergency department for a trauma. Total body CT-scan showed a large solid mass in middle and lower field of left lung with extensive involvement of pleural space, adherent to pericardium and diaphragm. The lesion had irregular contours and coarse calcifications; it displaced the lower lobar bronchus being without any mediastinal or lymph nodal involvement.

Since CT guided needle aspiration did not provide an adequate cellularity, lesion nature was evaluated by a PET/CT scan that was performed according to standard procedure with 353 MBq of 18F-FDG being injected in the presence of a serum glucose level of 5.5 mMol/L.

Pathologic tracer retention was observed only in the left pulmonary mass without any evidence of increased metabolism in mediastinum or remote areas. FDG uptake was only moderately increased (SUV max 3.5) suggesting a moderately aggressive nature of the lesion despite its sizeable extension. Moreover, tracer distribution was largely heterogeneous with hot spots immersed in a relatively of background, without any evidence of necrosis both at functional and morphological images. The disagreement between lesion morphology and tracer uptake and distribution suggested that the lesion was unlikely caused by a primary lung cancer, while the absence of remote lesions were not consistent with a lung metastasis. Relatively low SUV and its heterogeneous distribution suggested a possible diagnosis of thymoma, whose ectopic location in lung has not been described at PET, to the best of our knowledge. Histology of the surgically excised mass documented mixed foci of type A and type B thymoma; the diagnosis was confirmed by CK34βE12 expression [1].

Ectopic thymomas have been found in skull base [2], pulmonary parenchyma [3,4] and pleura [5]. In this patient, the peculiar association of morphological features (involvement of both lung parenchima and pleura) and functional pattern...
(moderately increased and largely heterogeneous SUV) were indeed suggestive for the diagnosis of thymoma [6,7].

This diagnosis was not considered due to the fact that, to the best of our knowledge, FDG pattern in this ectopic location have never been described. This case highlights the significance of degree and distribution of FDG in facilitating the diagnosis of lesion nature even in barely observed lesions.

REFERENCES


