



# A Rare Case and Atypical Metastatic Regions, Pulmonary Giant Cell Carcinoma

Nadir Olgu ve Atipik Metastatik Bölgeler, Pulmoner Dev Hücreli Karsinom

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## Abstract

Sixty two years old man referred to our clinic due to suspicion of thymic mass. The hypermetabolic nodular lesion in the right lung upper lobe was seen in <sup>18</sup>F-fluorodeoxyglucose (FDG)-positron emission tomography/computed tomography (PET/CT) in addition to the mass in the anterior mediastinum which was found to without malignancy. The patient underwent wedge resection and final diagnosis was pulmonary giant cell carcinoma. In follow-up <sup>18</sup>F-FDG PET/CT multiple lesions with pathological activity were observed in the cerebrum, right postauricular region, bilateral adrenal, stomach, pancreas, pelvic soft tissue, mesenteric, left femur and bilateral lung parenchyma 6 months after. The pathology results of the right frontal, pelvic mass and the postauricular region were metastasis.

**Keywords:** Primary pulmonary giant cell carcinoma, <sup>18</sup>F-FDG PET/CT, atypical metastasis

## Öz

Altmış iki yaşında hasta timik kitle nedeniyle kliniğimize başvurdu. Yapılan <sup>18</sup>F-florodeoksiglukoz (FDG)-pozitron emisyon tomografi/bilgisayarlı tomografide (PET/BT) anterior mediasten yumuşak doku kitlesine ek olarak sağ akciğerde hipermetabolik nodüler lezyon izlendi. Akciğer rezeksiyon sonrasında pulmoner dev hücreli karsinom tanısı aldı. Takip <sup>18</sup>F-FDG PET/BT'sinde beyin, sağ postauriküler, bilateral adrenal, mide, pankreas, pelvik yumuşak doku, mezenterik, sol femur ve bilateral akciğer parankiminde multipl patolojik aktiviteli lezyon gözlemlendi. Bunlardan sağ frontal, pelvik kitle ve postauriküler yerleşimli lezyonların histopatolojisi metastatik olarak sonuçlandı.

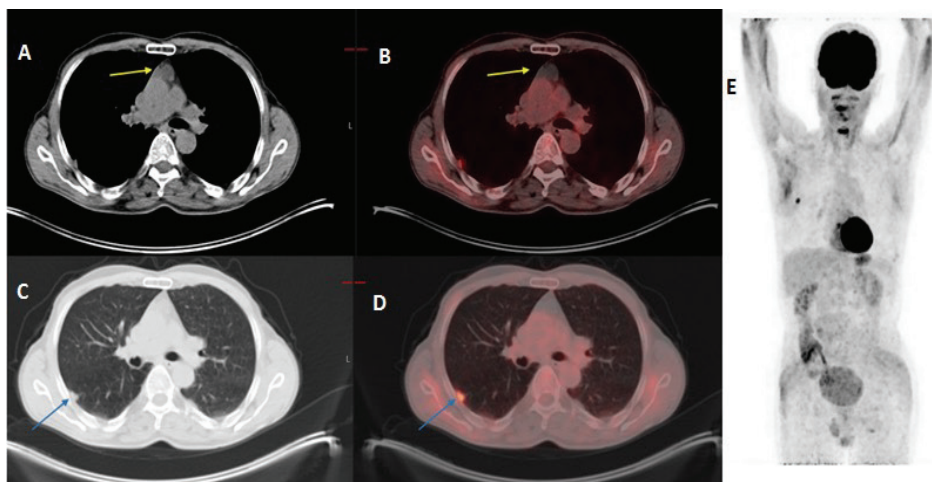
**Anahtar kelimeler:** Primer pulmoner dev hücreli karsinom, <sup>18</sup>F-FDG PET/BT, atipik metastaz

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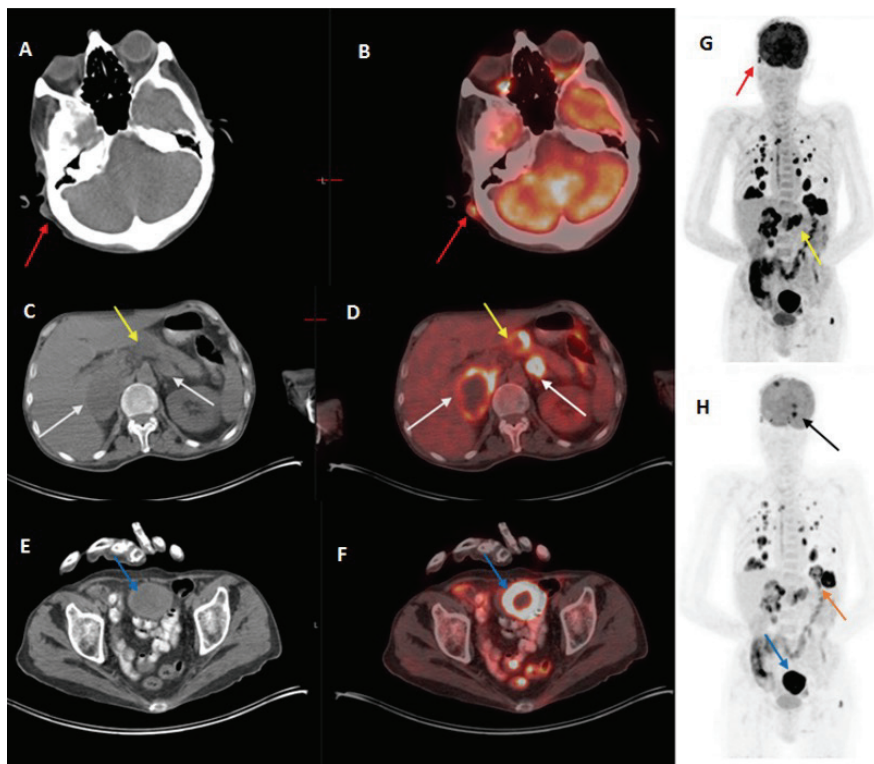
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**Received:** 01.10.2021 **Accepted:** 28.01.2022

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Molecular Imaging and Radionuclide Therapy published by Galenos Yayınevi.



**Figure 1.** We present a case of a 62 years old man with a history of giant cell tumour of lung.  $^{18}\text{F}$ -fluorodeoxyglucose (FDG)-positron emission tomography/computed tomography (PET/CT) demonstrated abnormal uptake in the malignancy suspected nodular lesion in right lung upper lobe (C and D, blue arrow). The patient underwent right lung wedge resection and final diagnosis was pulmonary giant cell carcinoma with visceral pleural invasion. Axial thorax CT image (A), fused PET/CT images (B, D), axial parenchyma window CT image (C), wholebody maximum intensity projection (MIP) image (E).



**Figure 2.** Six months after follow-up PET/CT, multiple metastatic lesions in the lung were noted. Multiple progressive metastatic lesions were seen around the brain (H, black arrow), bilateral adrenal (C and D, white arrows), pancreatic corpus (C, D, G, yellow arrows), pelvic soft tissue (E, F, H, blue arrows), right postauricular area (A, B, G, red arrows), left femur (G and H), and great curvature of stomach (H, orange arrow). The pathology of excisional biopsy proved that the right frontal, right postauricular and pelvic mass lesions were metastatic. Giant cell carcinoma of lung is a rare histological form of sarcomatoid carcinomas traditionally classified within the non-small cell lung carcinomas. Sarcomatoid tumors are an uncommon type of lung cancers (less than 1% of all lung cancers) and shows aggressive behavior (1,2,3,4,5). To the best of our knowledge, although there are reports of pulmonary giant cell carcinoma as a lung lesion in the literature (6,7,8), there are no reports of these atypical metastatic regions. Axial CT images (A, C, E), fused PET/CT images (B, D, F), wholebody MIP images (G, H).

## Ethics

**Informed Consent:** Each patient must sign a written consent authorising the use of anonymous data for research purpose before performing PET/CT scan.

**Peer-review:** Externally peer-reviewed.

## Authorship Contributions

Surgical and Medical Practices: C.N.D.Ç., M.N.E., A.B., Concept: C.N.D.Ç., M.N.E., Design: C.N.D.Ç., M.N.E., Data Collection or Processing: C.N.D.Ç., M.N.E., Analysis or Interpretation: C.N.D.Ç., M.N.E., A.B., Literature Search: C.N.D.Ç., M.N.E., Writing: C.N.D.Ç., M.N.E.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study received no financial support.

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