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EDİTÖRE MEKTUP
LETTER TO THE EDITOR

Lung cancer superimposed opacity of aortic arch

Koichi KURISHIMA¹
Katsunori KAGOHASHI¹
Hiroaki SATOH¹

¹ Department of Respiratory Medicine, Mito Medical Center, University of Tsukuba, Ibaraki, Japan

¹ Tsukuba Üniversitesi Mito Tıp Merkezi, Solunum Hastalıkları Anabilim Dalı, Ibaraki, Japonya

A 73-year-old man was visited our outpatient clinic complaining pain in the right upper quadrant. Abdominal echograph and CT scan revealed multiple liver masses, which were evaluated as metastatic liver tumors. Chest radiograph showed no abnormal mass, suggesting no primary lesion of the metastatic liver masses or no pulmonary metastasis from other organs (Figure 1A). Fluorodeoxyglucose positron emission tomography/computed tomography (FDG-PET/CT) was performed to assess the primary site of the metastatic liver masses. On FDG-PET, tumors were detected not only in the liver but also in the upper lobe of the left lung (Figure 1B). Chest CT scan showed an irregular-shaped mass measuring 3 cm in diameter, which was superimposed by the opacity of aortic arch, in the upper lobe of the left lung (Figure 1C). Specimens from the lung mass obtained by transbronchial biopsy proved to be a small cell lung cancer (SCLC).

The chest radiograph remains a pivotal role as the first-line imaging for initial detection of lung cancer, although imaging for staging is mainly based on CT scan. However, previous researchers reported that potentially detectable lung cancers were missed during interpretation of chest radiographs in more than 10% of patients (1-4). Missed lesions were not always small or subtle, and failure to detect them was frequently due to superimposed other normal anatomical structures (2,5,6). Among lung cancers, SCLC is an aggressive tumor and is usually detected at locally advanced or metastatic disease with a large lung mass and bulky hilar and mediastinal lymph node swelling. Liver metastases are not rare in SCLC patients and most of them had multiple nodules (7).

Although very rare, there are some patients with undetected primary lesion on chest radiograph. In such a case, FDG-PET/CT is useful in confirming exact existent of the primary tumor, which is superimposed by opacities of other anatomical structures.

Yazışma Adresi (Address for Correspondence)

Dr. Hiroaki SATOH

Tsubaka Üniversitesi Mito Tıp Merkezi, İç Hastalıkları
Anabilim Dalı, Miya-Machi 3-2-7, Mito, 310-0015,
IBARAKI-JAPAN

e-mail: hirosato@md.tsukuba.ac.jp

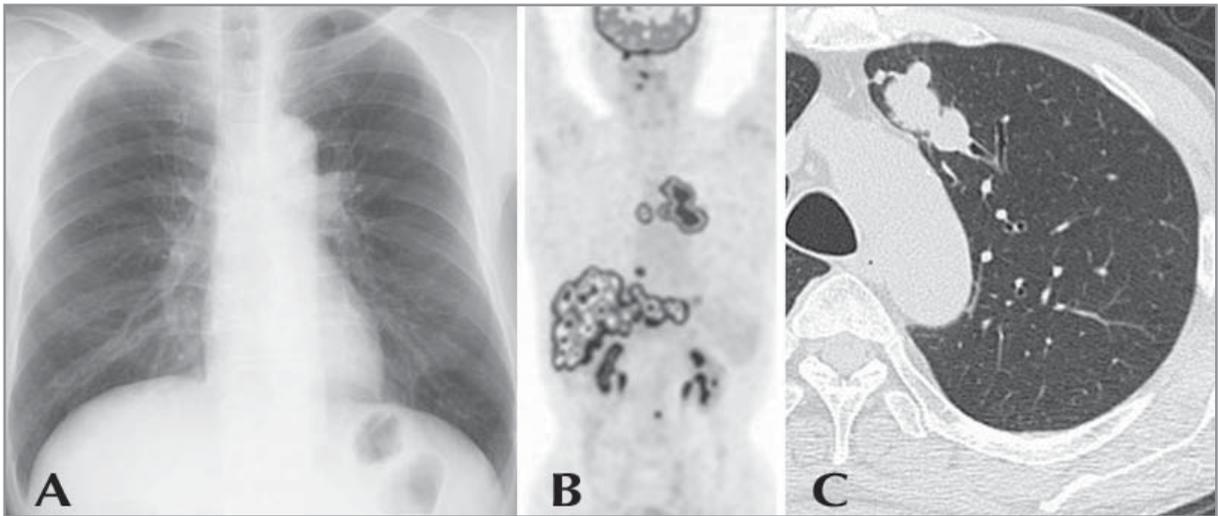


Figure 1. Chest radiograph showed no abnormal mass (A), FDG-PET revealed tumors were detected not only in the liver but also in the upper lobe of the left lung (B), Chest CT scan showed an irregular-shaped mass measuring 3 cm in diameter, which was superimposed by the opacity of aortic arch, in the upper lobe of the left lung (C).

CONFLICT of INTEREST

None declared.

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