Rapidly Progressive Diffuse Cystic Lesions as a Radiological Hallmark of Lung Adenocarcinoma

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CASE PRESENTATION

A 39-year-old nonsmoking man presented to us with complaints of progressive hoarseness and nonproductive cough. Laboratory examinations revealed elevated serum carcino-embryonic antigen (15.49 ng/ml) and cancer antigen-125 (40.01 U/ml). Chest computed tomography (CT) 1 month earlier showed a 25 × 20 mm central located mass in the left upper lobe and diffused cystic lesions in bilateral lungs (Figure 1). Repeated chest CT scan in our institution showed increased size of the mass at 35 × 30 mm and rapidly enlarged, widespread, disseminated thin-walled cystic lesions in bilateral lungs (Figure 2). Bronchoscopy revealed an endobronchial whitish lesion in the left apicoposterior segment bronchus but was otherwise normal. Histologic and immunohistochemical examination of the mass and blind-aspirated lung specimen established the diagnosis of adenocarcinoma. The cancer cells were poorly differentiated with a positive reaction to carcino-embryonic antigen, thyroid transcription factor 1, and cytokeratin 7 staining. Positron emission tomography revealed heterogeneous uptake of the mass, cystic lesion, and mediastinal lymph nodes, suggesting intrapulmonary metastasis. His clinical stage was T1N2M1 stage IV and epidermal growth factor receptor mutation test was negative. He underwent cisplatin/gemcitabine chemotherapy for four cycles. The next 3 months follow-up documented significant improvement and the patient was alive and stable.

This report highlights that lung adenocarcinoma might present as multiple cystic lesions on rare occasions.[1] It is essential to maintain a high index of suspicion for adenocarcinoma in patients with mediastinal mass and diffused thin-walled cystic lesions as observed in our case.

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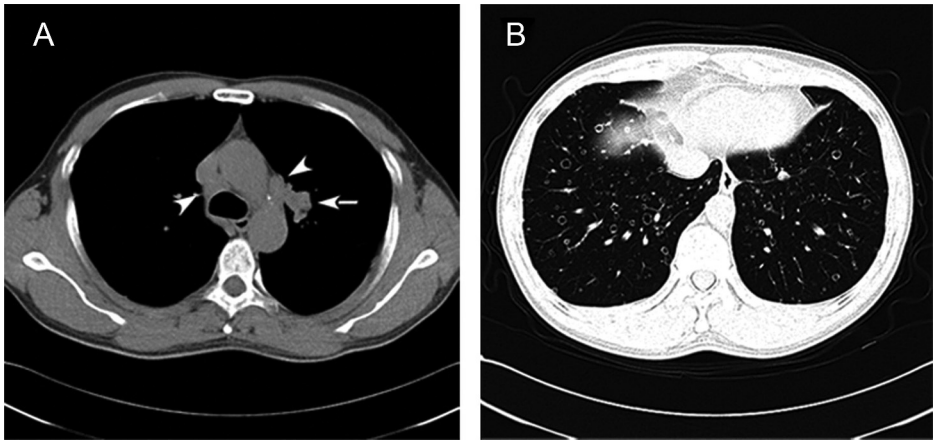

FIGURE 1. *A*, Initial chest computed tomography showed a 25 × 20 mm central located mass in the left upper lobe with hilar lymphadenopathy. *B*, Diffused cystic lesions in bilaterial lungs.

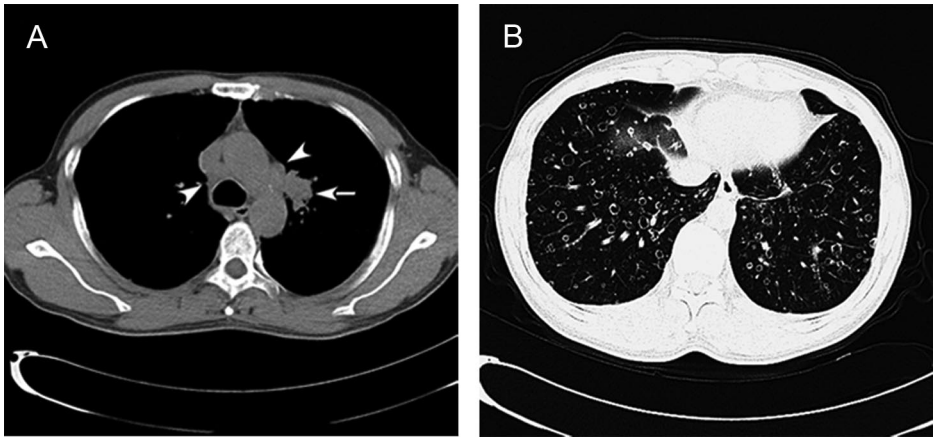

FIGURE 2. *A*, Repeated chest computed tomography after 1 month duration revealed enlarged mass at 35 × 30 mm. *B*, Rapidly enlarged, widespread, disseminated thin-walled cystic lesions in bilateral lungs.