Bilateral diffuse cystic, cavitary lung metastasis of adenocarcinoma

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Clinical

A 35-year-old female patient admitted to hospital with complaints of cough, chest pain and weight loss.

Chest X-ray revealed bilateral diffuse noduler-cavitary and cystic lesions (Figure 1).

Figure 1. Posterior anterior chest X-ray revealed bilateral diffuse noduler-cavitary and cystic lesions

Computed tomography demonstrated bilateral diffuse multiple cavitary and cystic lesions (approximately 1–1.5 cm in diameter) (Figure 2). Cytological examinations of bronchoalveolar lavage were reported as benign cytology. Pathologist recognised neither malignancy nor benign cystic lung disease on transbronchial biopsy material.
During follow-up, the patient developed abdominal pain and jaundice, so we performed endoscopic retrograde cholangiopancreaticography. Tubulovillose adenocarcinoma of the duodenum was reported in the duodenal biopsy specimen. Transthoracic open lung biopsy was done for cystic cavity lung lesions to clarify adenocarcinoma metastasis. Pathological examination of lung biopsy material was identical to the adenocarcinoma metastasis.

**Discussion**

A wide spectrum of chronic diseases—including usual interstitial pneumonia, desquamative interstitial pneumonia or respiratory bronchiolitis, interstitial lung disease, lymphocytic interstitial pneumonia, emphysema, lymphangioleiomyomatosis, and Langerhans cell histiocytosis—show pulmonary cystic lesions.\(^1\)\(^-\)\(^3\)

Pathogenesis of cavitary-cystic metastasis is not known exactly. They may be either caused by excavation of nodular tumour through discharge of necrotic material inside, or by infiltration of malignant cells into the walls of a pre-existing benign pulmonary bulla. Thirdly, it may be caused by infiltration of malignant cells into the walls of air sacs formed by cystic distension of small airways through the ball-valve effect of the tumour.\(^4\)

In conclusion, we suggest that diffuse bilateral cystic-cavitary pulmonary lesions could be metastasis of malignant diseases.
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