Synchronous double primary lung cancers of squamous and neuroendocrine type associated with cryptogenic fibrosing alveolitis

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Abstract

A 72 year old man with simultaneously occurring squamous cell and neuroendocrine carcinomas in association with cryptogenic fibrosing alveolitis is reported. The tumours were separate and both were in the fibrotic area of the right lower lobe.

We report a case of two synchronous cancers developing in a 72 year old man with cryptogenic fibrosing alveolitis. The histological types were squamous cell carcinoma and neuroendocrine carcinoma, a combination that has not been reported previously.

Case report

A 72 year old Korean merchant visiting a hospital for a routine check was found to have a nodular density associated with diffuse infiltrates on his chest radiograph. He had smoked 20 cigarettes daily for 50 years. Cough, sputum, and mild dyspnoea were present. Physical examination disclosed end inspiratory crackles at both lung bases. The chest radiograph and high resolution computed tomogram of his chest showed diffuse, irregular, and bilateral reticulonodular densities in the lung, which were more pronounced in the lower lung fields and subpleural areas in keeping with cryptogenic fibrosing alveolitis. Two intrapulmonary masses, 2 and 3 cm in diameter, were also seen in the right lower lobe in association with the reticulonodular densities. Ventilatory function was normal; transfer factor for carbon monoxide was 63% predicted.

A right lateral thoracotomy disclosed a serosanguinous effusion and diffuse pleural fibrosis and nodularity. A right lower lobectomy was performed.

Gross examination of the resected lobe showed diffuse honeycombung, especially in the subpleural areas of the lung. There were also two separate masses within the honeycomb area, measuring when fixed 3.0 × 1.5 × 1.5 cm and 1.2 × 1.0 × 0.5 cm. The larger one had a granular cut surface and
Discussion

Several conditions resulting in chronic interstitial fibrosis of the lungs are associated with the later development of cancer. Progressive systemic sclerosis, rheumatoid interstitial lung fibrosis, and cryptogenic fibrosing alveolitis are examples. The incidence of lung cancers varies from 9.8% to 17%. The distribution of the histological types of carcinoma is similar to that in patients without fibrosis, though some authors have claimed an increased frequency of adenocarcinoma, including bronchioalveolar cell carcinoma and small cell carcinoma.

Only one previous report details the presence of synchronous primary lung tumours associated with diffuse interstitial pulmonary fibrosis. These were a squamous cell carcinoma and a bronchioalveolar cell carcinoma. Synchronous tumours of different histological type have been reported rarely and the most common combination has been squamous cell carcinoma and adenocarcinoma. This is the first report of a squamous cell carcinoma associated with a neuroendocrine tumour in diffuse lung fibrosis. The neuroendocrine tumour was unusual in displaying a well differentiated area merging into the more aggressive small cell carcinoma of intermediate type.