Centrally Located Squamous Cell Carcinoma of the Lung Mimicking Endobronchial Tuberculosis

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Abstract: Here we report a case of centrally located squamous cell carcinoma of the lung mimicking endobronchial tuberculosis. On the basis of the white light bronchoscopic (WLB) findings, bronchial tuberculosis was initially suspected. But transbronchial biopsy of the lesion revealed squamous cell carcinoma. Autofluorescence imaging bronchovideoscopy (AFI) showed the lesion area as magenta. After four cycles of chemotherapy, the magenta area was markedly shrunk on AFI. Performance of AFI might be useful for differentiating centrally located lung cancer from endobronchial tuberculosis.

Key Words: Squamous cell, Lung cancer, Endobronchial tuberculosis, Autofluorescence imaging, Bronchoscopy.

CASE REPORT

An 88-year-old man presented with a productive cough and hemoptysis for 3 months. The chest x-ray film and computed tomography scans showed a left lower lobe mass and peripheral atelectasis. Conventional white light bronchoscopy (WLB) revealed swollen and hyperemic mucosa diffusely covered with white material that extended from the left main bronchus to the peripheral bronchi (Figure 1A). Autofluorescence imaging (AFI) bronchovideoscopy (Olympus Optical Corporation, Tokyo, Japan) showed the lesion area as magenta (Figure 1B). Based on the WLB findings, bronchial tuberculosis was initially suspected. Gaffky smear and polymerase chain reaction of the bronchoscopic samples were performed twice, but all tests were negative for acid fast bacilli. Then transbronchial biopsy of the left main bronchus revealed squamous cell carcinoma.

The patient was diagnosed with stage IIIb squamous cell carcinoma of the lung (T4N0M0). He was treated with four cycles of docetaxel therapy (60 mg/m² on day 1 every 3 weeks). After these four cycles of chemotherapy, the whitish lesion was reduced on WLB (Figure 2A), and the magenta area was markedly shrunk on AFI (Figure 2B).

As occurred in this case, centrally located squamous cell carcinoma can manifest as bronchial lesions diffusely covered with white material on WLB alone, which is also the most frequent WLB finding of endobronchial tuberculosis.
Recently, AFI has improved the diagnostic precision of fluorescence bronchoscopy and can accurately and objectively distinguish malignant lesions from bronchitis. As in this case, performance of AFI might be useful for differentiating centrally located lung cancer from endobronchial tuberculosis.

REFERENCES