Fibromyxoma of the Trachea

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A 53-year-old male with a small cell carcinoma of the lung was admitted to the Department of Respiratory Diseases, Nikko Memorial Hospital. During bronchofiberoptic examination of the cancer, a small nodule was discovered on the anterior wall of the trachea, about 8 cm below the vocal cord. Histopathologically, it was diagnosed as fibromyxoma of the trachea. Primary tumors of the trachea are very rare and fibromyxoma of the trachea is extremely rare. This is only the second report of a fibromyxoma on the tracheal wall. In this report its clinical manifestations were compared with those reported in the first case.

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Case Report

The patient was a 53-year-old male priest. A chest x-ray revealed a nodular shadow in the right upper lung and enlargement of the right hilus suggesting a lung cancer. Computed tomography of the chest also showed a tiny protrusion on the tracheal anterior wall. There was neither tumor infiltration to the surrounding mediastinum nor a tracheal deformity. Bronchofiberoptic examination (Fig. 1) revealed a small hemispheric nodule located on the anterior wall of the trachea, approximately 8 cm below the vocal cord. The surface of the tumor was smooth and covered with normal mucosa without vascular engorgement. As its size was approximately only 1 mm in diameter, the tumor was removed endoscopically with biformceps in one effort. The histopathology was proved to be fibromyxoma.

The lung cancer was cytologically defined as a small cell carcinoma that had originated in the right upper lobe, and was classified by UICC, TNM classification as belonging to stage IV (T3N2M1). Laboratory examination provided no abnormal data except for a slightly elevated LDH level 242 U/l, and hyper γ-globulinemia 30.1%. The tumor markers were carcinoembryonic antigen 30.4 ng/ml, neuron-specific enolase 31.7 ng/ml, and tissue polypeptide antigen 146.3 U/l.

Histopathological Findings

The tumor which was covered by a normal tracheal mucosal epithelium consisted of fibrous tissue with a myxomatous matrix in the submucosal area (Fig. 2). A part of tracheal cartilage was located in the deeper region. A small amount of fatty tissue was also observed in the loose collagenous tissue. An epithelial component of tumor constitution was not recognized, although hamartoma is composed of non-epithelial and epithelial components. No malignant findings such as pleomorphism or mitosis were seen.

The final histopathologic diagnosis was made as fibromyxoma.
Fig. 2. a) The tumor, covered by normal tracheal mucosa, consists of fibrous tissue with myxoid matrix in the submucosal area. In the deeper region a part of the tracheal cartilage is seen (HE stain, ×35). b) The myxoid matrix in the loose fibrous tissue with fibroblastic proliferation is observed (HE stain, ×180).