PROPORTION AND CHARACTERISTICS OF TRANSIENT NODULES IN A RETROSPECTIVE ANALYSIS OF PULMONARY NODULES

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Background: With the popularity of chest CT scanning, differential diagnosis of pulmonary nodule became a great burden to chest physicians. Pulmonary nodules manifest as pure or mixed ground glass opacities (GGO) as well as solid nodules. We performed this retrospective analysis to observe the proportion and predictive factors of transient lesions in a cohort of patients who visited our institution for the differential diagnosis of pulmonary nodules.

Methods: We surveyed 317 cases with pulmonary nodules from June 2004 to March 2011. The age distribution showed 57.1±11.3 years (mean±standard deviation, range 30~86). Male patients comprised 62.1% (n=197), and 53.9% of patients were smokers.

Results: Nodules from 114 cases (36%) disappeared or decreased in size during follow up, while 203(64%) cases did not change or enlarged. At the initial CT scan, 63.7% showed solid nodules, while 20.2% had mixed GGOs and 16.1% of cases manifested as pure GGOs. During follow up, more than half of GGOs resolved (66.7% in pure GGOs, 54.7% in mixed GGOs) while only 22.3% of solid nodules resolved. Between transient and persistent pulmonary nodules, there were significant differences in age, gender, presence of smoking history, presence of eosinophilia, size and radiologic attenuation of nodules (solid or GGO). In results of multivariate analysis, age (< 55 years), eosinophilia, size(>15mm) and GGO were significant (p<0.05) independent predictors of transient nodule. The main causes of transient nodules were pneumonia or eosinophilic pulmonary infiltrates.

Conclusion: About 54~66% of ground glass opacity nodules resolved spontaneously or with medical treatment. Transient nodules could be predicted with clinical and radiological characteristics.

Clinical Characteristics of Peripheral versus Central Lung Cancer since 2000

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Background/Aim: Adenocarcinoma has replaced squamous cell carcinoma as the most common cell type of lung cancer in Korea. The aim of this study was to explore the changes of bronchoscopic features according to epidemiologic change of lung cancer.

Method: We performed a retrospective review of the clinical characteristics of 1,139 lung cancer patient who underwent bronchoscopy at Kosin University Hospital from January 2000 to December 2010.

Results: The median age at lung cancer diagnosis was 64 years of age. The age of patients increased significantly during the last decade (p<0.001). The most common histological type was adenocarcinoma (38.1%), followed by squamous carcinoma (35.7%) and small cell carcinoma (15.3%). There was an increasing incidence of adenocarcinoma over the time (p<0.001). Bronchoscopic feature were divided into two classes; central type (polyphoid mass, mucosal infiltration, nodular protrusion), peripheral type (no endobronchial mass). The peripheral type was predominant (62.3%). We compared the proportion of tumors in peripheral versus central location in process of time (from 2000 to 2003, from 2004 to 2007, from 2008 to 2010). The proportion of peripheral type has been increased (49.7% vs. 63.7% vs. 73.7%; p<0.01). Among the major histopathologic type of lung cancer, adenocarcinoma (81.3%) and unclassifiable non-small-cell lung cancer (73.4%), small cell carcinoma (56.9%) were associated with preferential occurrence of peripheral type. Squamous cell carcinoma of the lung more often arose in central type (59%). However, the proportion of peripheral squamous cell carcinoma has been increased. The median survival times based on bronchoscopy features were central type (14.2 month), peripheral type (17.7 month). On the subgroup analysis, the median survival time of peripheral type with adenocarcinoma and small cell carcinoma were longer than central type (p<0.05).

Conclusion: The age of the lung cancer patients at diagnosis was getting older. The most frequent histopathologic type was adenocarcinoma. The proportion of peripheral type lung cancer gradually increased over the time. The survival time of peripheral type lung cancer was longer than central type.