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 revolved spontaneously or with medical treatment. Transient nodules could be predicted with clinical and radiological characteristics.