# A Retrospective Analysis of 60 Relapsing Polychondritis Patients with Laryngo-tracheobronchial Involvement

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#### Abstract

Objectives High incidence of laryngo-tracheobronchial symptoms was reported in Chinese patients with relapsing polychondritis (RP),but it is either misdiagnosed or delayed in diagnosis during the early stage. Characteristics of RP patients with laryngo-tracheobronchial involvement were summarized in this study to increase awareness of this disease. Design, Setting and Participants Sixty RP patients with laryngo-tracheobronchial involvement hospitalized in Beijing Tongren Hospital were analyzed retrospectively. Results A total of 31 males and 29 females were included in the study with an average age of 37.3+16.7 years. The median delay between onset and diagnosis was 12.5 months (range, 1 to 156 months). The rate of misdiagnosis was as high as 60%. The most common initial respiratory symptom was hoarseness (23/60, 38.3%), followed by dyspnea (11/60, 18.3%) and cough (9/60, 15.0%). The most common accumulated respiratory symptom was dyspnea (53/60, 88.3%), followed by hoarseness (52/60, 86.7%) and cough (35/60, 58.3%). Subglottic stenosis was observed in 51 cases (85.0%). Congested, swollen vocal cords and arypiglottic folds, which looked like acute laryngitis, were observed in 41 cases (68.3%) and 30 cases (50.0%) respectively. Cricoid cartilage was the most easily involved laryngeal cartilage on CT (39/60, 65.0%). Conclusions In RP patients with laryngotracheobronchial involvement, cricoid cartilage is the most easily involved airway cartilage. In cases of recurrent laryngitis and subglottic stenosis without clear cause, RP should be a candidate diagnosis. Key words Polychondritis, Relapsing; Larynx; Trachea; Bronchi; Cartilage

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