## A Clinical Study of Tracheobronchopathia Osteochondroplastica: Findings from a Large Chinese Cohort

Authors: Ying Zhu, Ning Wu, Hai-Dong Huang, Yu-Chao Dong, Qin-Ying Sun, Wei Zhang, Qin Wang, Qiang Li

Abstract: Background and study aims: Tracheobronchopathia osteochondroplastica (TO) is an uncommon disease of the tracheobronchial system that leads to narrowing of the airway lumen from cartilaginous and/or osseous submucosal nodules. The aim of this study is to perform a detailed review of this rare disease in a large cohort of patients with TO proven by fiberoptic bronchoscopy from China. Patients and Methods: Retrospective chart review was performed on 41,600 patients who underwent bronchoscopy in the Department of Respiratory Medicine of Changhai Hospital between January 2005 and December 2012. Cases of TO were identified based on characteristic features during bronchoscopic examination. Results: 22 cases of bronchoscopic TO were identified. Among whom one-half were male and the mean age was 47.45 ±10.91 years old. The most frequent symptoms at presentation were chronic cough (n=14) and increased sputum production (n=10). Radiographic abnormalities were observed in 3/18 patients and findings on computed tomography consistent with TO such as beaded intraluminal calcifications and/or increased luminal thickenings were observed in 18/22 patients. Patients were classified into the following categories based on the severity of bronchoscopic findings: Stage I (n=2), Stage II (n=6) and Stage III(n=14). The result that bronchoscopic improvement was observed in 2 patients administered with inhaled corticosteroids suggested that resolution of this disease is possible. Conclusions: TO is a benign disease with slow progression, which could be roughly divided into 3 stages on the basis of the characteristic endoscopic features and histopathologic findings. Chronic inflammation was thought to be more important than the other existing plausible hypotheses in the course of TO. Inhaled corticosteroids might have some impact on patients at Stage I/II.

**Keywords:** airway obstruction, bronchoscopy, etiology, Tracheobronchopathia osteochondroplastica (TO), treatment **Conference Title:** ICBIPRD 2015: International Conference on Bronchology, Interventional Pulmonology and Respiratory

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