

# Bronchoscopic and angiographic comparison of endobronchial vascular lesions in patients with hemoptysis

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**<B>Background</B>** In order to study the bronchoscopic and angiographic findings of endobronchial vascular lesions in patients with hemoptysis and to observe changes of the lesions after bronchial artery embolization.

**<B>Methods</B>** We retrospectively analyzed the bronchoscopic and angiographic data of patients with hemoptysis and endobronchial vascular lesions in two affiliated hospitals of Kunming Medical University from January 2008 to December 2012.

**<B>Results</B>** There were 7 patients (3 men and 4 women; age range, 18-46) with endobronchial vascular lesions and with hemoptysis duration 4 days to 1 year. The vascular lesions were all located in the third-order and were divided into three types according to the lesion morphology, tubular bulging type, mass-like type and haemangioma type. There were 6 cases located in the right bronchus and one case located the left bronchus. There were 2 cases located in the right B10, 2 cases located in the right B6, 1 case located in the right B7, 1 case located in the right B5, 1 case located in the left lingular bronchus. According to the lesion morphology, 5 lesions were the tubular bulging type, 1 lesion was the mass-like type and 1 lesion was the haemangioma type. All the patients underwent a bronchial arteriography. Bronchial angiographic findings revealed hypervascularity, dilatation, and tortuosity of bronchial arteries which corresponds with the location of the endobronchial lesions. 4 of the 7 cases showed the bronchial artery-pulmonary artery fistula, 1 case showed the bronchial artery-pulmonary venous fistula, 2 cases showed the bronchial artery rupture. All the patients were treated with bronchial arterial embolization, and 1 patient were treated with surgical resection of lung segment after bronchial artery embolization. The follow-up period was 3 months to 5 years. There were no further hemoptysis in 6 patients, one patient had a small amount of hemoptysis again. Bronchoscopy showed disappearance or diminution of the endobronchial vascular lesions observed before treatment.

**<B>Conclusions</B>** Endobronchial vascular lesions were mainly located in the right lower lobe bronchus. When bronchoscopy showed vascular lesions protruding into the lumen, biopsies should be cautious, bronchial arteriography should be considered in order to exclude the possibility of bronchial artery disease and avoid potential bleeding risks. These implications of the correspondence between the bronchoscopic findings and the angiograms should be most useful when using bronchoscopy in the management and treatment of endobronchial.

