Tracheal bronchus

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We present a case of incidental finding of an aberrant tracheal bronchus in a 68-year-old male patient that was evaluated with chest computed tomography (Fig. 1) and subsequent bronchoscopy (Fig. 2) for the staging of a newly diagnosed squamous carcinoma of the larynx. Tracheal bronchus originated from right lower lateral wall of the trachea, 1 cm above the level of the carina, and had no bifurcation, while the right upper lobe bronchus was fully developed, classifying the observed anomaly as a supernumerary right tracheal bronchus. Tracheal bronchus is a congenital tracheobronchial anomaly in which an abnormal bronchus arises from the lateral wall of the trachea above the carina, almost exclusively on the right side, and supplies the ipsilateral upper lobe. Its prevalence ranges from 0.1 to 2% and can either represent a displaced upper lobe or apical segmental bronchus or rarely be supernumerary, coexisting with normal upper lobe branching[1]. In adults, it is usually asymptomatic and incidentally diagnosed in computed tomography or bronchoscopy performed for other indications. However, it can be associated with respiratory morbidity, especially in children, with manifestations including persistent cough, stridor, recurrent pneumonia, chronic bronchitis, atelectasis, bronchiectasis and hemoptysis, usually in the case of bronchial stenosis which causes retention of secretions[2]. Tracheal bronchi are also reported as a cause of serious complications in anaesthesiology, since a tracheal tube can obstruct or migrate into the tracheal bronchus resulting in hypoxaemia, atelectasis or pneumothorax[3]. Chest computed tomography is the imaging study of choice for the detection of the anomaly, while bronchography can demonstrate the parenchymal supply of the aberrant bronchus when it is supernumerary[4]. Flexible bronchoscopy allows a direct view of the anatomy of the bronchial tree and distinction between tracheal diverticulum and fully developed tracheal bronchus. Treatment is not required in asymptomatic patients, however, in the presence of serious respiratory symptoms and recurrent infections surgical excision should be considered[5].

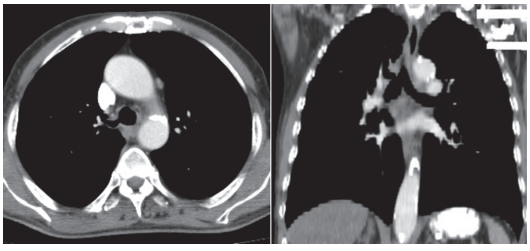

FIGURE 1. Chest computed tomography (axial and coronal view) of the patient, demonstrating an aberrant bronchus arising from the right lateral tracheal wall.

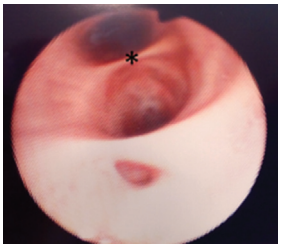

FIGURE 2. Bronchoscopic image, revealing the orifice of the tracheal bronchus 1 cm above the carina (*).

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