Bronchial Dieulafoy's Disease in an 88 Year Old Patient with COPD

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INTRODUCTION Bronchial Dieulafoy’s disease is a rare vascular anomaly characterised by the presence of a submucosal tortuous bronchial or pulmonary artery, which can be asymptomatic or manifest with massive haemoptysis. Multiple cases of bronchial Dieulafoy’s disease have been reported in the literature [1] ranging from infants to adults up to 85 years of age.

CASE An 88 year old male ex-50 pack year smoker with recurrent infective exacerbations of chronic obstructive pulmonary disease (COPD) had been referred to chest clinic after multiple episodes of minor haemoptysis for 10 days. His haemoptysis had settled after treatment for an infective COPD exacerbation with antibiotics and steroids. His first presentation of recurrent haemoptysis for 5 days only eight months earlier had resolved after similar treatment. Computed tomography (CT) with contrast excluded malignancy and bronchiectasis, but identified dilated bronchial arteries arising from the aortic arch contiguous with the right upper lobe, bronchus intermedius and middle lobe. One tortuous dilated bronchial artery extended from the anterior right hilum along the horizontal fissure to the mediastinal pleural surface where its calibre diminished, whereas another artery appeared to project into the superior aspect of the right middle lobe (RML) bronchus. Fibreoptic bronchoscopy confirmed a large submucosal vascular structure feeding from the anterior orifice to distal RML bronchus with no source of haemoptysis found. No endobronchial biopsy was attempted in view of our suspicion of bronchial Dieulafoy’s disease and risk of precipitating haemorrhage. Bronchoalveolar lavage showed mild growth of *Staphylococcus aureus*, which had been treated with Rifampicin and Doxycycline due to Penicillin and Erythromycin allergy. He had no subsequent episodes of haemoptysis following conservative treatment to warrant further investigation or treatment. DISCUSSION We report the oldest case of bronchial Dieulafoy’s disease associated with recurrent haemoptysis in an 88 year old patient, who had previously been asymptomatic. Although our diagnosis was based by means of bronchoscopy and contrast-enhanced CT thorax, we recognize the emerging role of vascular angiography and endobronchial ultrasound (EBUS) [1] for confirmation of this condition. We postulate that his recurrent haemoptysis was attributed to haemorrhage from bronchial Dieulafoy’s disease as a consequence of increased chronic airway inflammation secondary to infective exacerbation of COPD. If he had presented with massive haemoptysis, the option of selective bronchial artery embolization and/or surgical lung resection would have been considered.
