Endobronchial Dieulafoy lesion: a rare presentation of hemoptysis

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INTRODUCTION

A Dieulafoy lesion is a defined as the presence of large and dysplastic arteries in the submucosa [1]. This disease is most commonly encountered in the gastrointestinal tract but rarely may be seen in the bronchus and is associated with massive hemoptysis. This case report describes the presentation, diagnosis, treatment, and follow up of a patient who presented with hemoptysis secondary to an endobronchial Dieulafoy's lesion.

CASE DESCRIPTION

A 60-year-old female with a remote history of smoking presented with a one-day history of hemoptysis. She denied use of anticoagulants, NSAIDs, or herbal products that would predispose her to hemoptysis. Her family history was significant for lung cancer in both her mother and father. She was hemodynamically stable on admission. CTA of the chest revealed fairly extensive debris within the right lower lobe bronchus and bronchioles (image 1), nonspecific ground-glass attenuation opacities throughout both lungs, and mild hyperinflation of the right lower lobe. She underwent bronchoscopy at which time a large clot was removed from the right bronchus intermedius (image 2). An actively bleeding endobronchial vessel was subsequently visualized. Balloon tamponade of her right lower lobe and bronchus intermedius was performed with subsequent IR embolization of the right bronchial artery. She was transferred to the ICU post-operatively. She was successfully extubated on post-operative day 1 and was discharged on post-operative day 5.

The patient followed up in the outpatient office one week after hospital discharge at which time she reported no further episodes of hemoptysis. A repeat chest CT was obtained that revealed resolution of the ground-glass opacities in the right lung as well as clearing of the previously seen filling defects in the right mainstem bronchus, bronchus intermedius and lower lobe segmental bronchi which was probably due to hemorrhage. No further follow up was required after her three month follow up visit given the patient's clinical improvement and her repeat CT scan findings.



Image 1. Debris within the right lower lobe bronchus and bronchioles

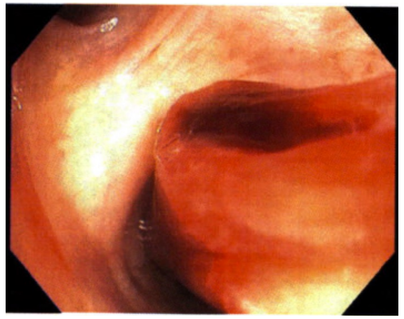


Image 2. Blood clot located within the right lower lobe bronchus

DISCUSSION

A bronchial Deulafoy lesion is a rare vascular anomaly consisting of a dysplastic submucosal artery [1]. The most common presenting symptom is hemoptysis but patients may experience progressive dyspnea, chest pain, cough, and fatigue [2]. The etiology is unknown but may be secondary to a congenital vascular malformation or chronic bronchial injury due to previous pulmonary infection [1]. Age, hypertension, and tobacco use have an influence on these lesions as well [1,2,3]. These lesions are more commonly seen in men and most commonly present in middle age [2]. Most malformed arteries originate from the bronchial artery, but a few cases have involved the pulmonary artery [2]. The treatment consists of bronchial artery embolization. Surgical resection may be indicated for patients who are unstable, have uncontrolled hemoptysis, or who failed bronchial artery embolization [1].

CONCLUSION

Bronchial Dieulafoy lesions are a rare cause of hemoptysis. These lesions most commonly present with hemoptysis and are most commonly seen in middle aged men. Etiology is unknown but may be secondary to a congenital vascular malformation or may be due to chronic bronchial injury secondary to previous pulmonary infection. This case detailed the presentation and management of a patient presenting with hemoptysis secondary to a bronchial Dieulafoy lesion.

REFERENCES

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