Successful embolization of bronchial artery aneurysms

Dr Elena Lonjedo Vicent, MD. Prof. Interventional and Vascular Unit Universitary Hospital Dr Peset Valencia
Disclosure

Speaker name:
DR Elena Lonjedo

I have the following potential conflicts of interest to report:
- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

☒ I do not have any potential conflict of interest
Mediastinal bronchial artery aneurysms (BAA) are uncommon, with fewer than 50 published case reports. They are identified in <1% of bronchial selective arteriograms. They are anatomically classified into mediastinal or extrapulmonary and intrapulmonary.
Clinical presentation

- Clinical presentation varies from an incidental finding to hemoptysis or hemomediastinum and shock resulting from rupture.
- Extrapulmonary bronchial aneurysm manifests as a spontaneous mediastinal hematoma that presents with severe retrosternal pain resembling an acute coronary syndrome or aortic dissection.
- Intrapulmonary aneurysms manifests as intermittent or massive hemoptysis
Ethiology

Many predisposing conditions have been described in the setting of BAA including bronchiectasis, atherosclerosis trauma, radiation therapy, mycotic infection and Osler-Weber-Rendu syndrome. This suggests that the etiology of these aneurysms may be related to the chronic inflammatory state or to the hyperafflux of the vessels involved.
Diagnosis

AngioTc is the diagnostic method of choice, relegating arteriography for diagnostic confirmation and treatment.
TREATMENT

Treatment may be surgical, with graft stent or transarterial embolization
CASE 1

54-year-old man
Clinical history of an infected bronchiectasis

AngioTC: aneurysm at the origin of the left bronchial artery (20x14 mm)
CASE 1

Transarterial embolization with steel coils
CASE 1

3 months Follow up: complete occlusion of aneurysm
CASE 2

81 years-old-man

- Medical history of chronic bronchitis
- Bilateral upper lobe bronchiectasis with episodes of hemoptysis
- Currently presented to our emergency department with fever, pleuritic chest pain, productive cough, and an elevated WBC
CASE 2

AngioTC: mediastinal window showed a 12 mm aneurysm proximal to the origin of an hypertrophic left bronchial artery, with a significant stenosis proximal to the aneurysm

AngioTC: lung window showed a change of chronic bronchitis and bilateral cystic bronchiectasis
CASE 2

Transarterial embolization with Onyx
Rare disease
There is currently an increase in incidence as a casual finding in CT images. It is important to treat the injury before it breaks, specially in mediastinal aneurysm. Endovascular embolization seems to be the best therapeutical option. Depending on the neck, the caliber of the vessel, the stability of the catheter, we used different embolizing agents.
Conclusion:

We present two cases of bronchial aneurysms treated with embolization with good clinical and morphological outcome with detachable coils and with onyx without complications.
References:

Successful embolization of bronchial artery aneurysms

Dr Elena Lonjedo Vicent, MD. Prof. Interventional and Vascular Unit Universitary Hospital Dr Peset Valencia