



## REMARKS

### 1 General

- 1.1 Haemoptysis is defined as the expectoration of blood that originates from the tracheobronchial tree or pulmonary parenchyma. The majority of cases are benign and are self-limiting episodes. However, its underlying aetiology must be evaluated. Common aetiologies include bronchitis, bronchiectasis, pneumonia, tuberculosis and malignancy.
- 1.2 The definition of massive haemoptysis varies in literature from 100 – 1000ml over 24 hours but the more widely used figure is expectoration of 300 – 600ml of blood over 24 hours. The source of bleeding is usually from erosion of systemic rather than pulmonary arteries. Notable exceptions are arteriovenous malformations (AVM) and pulmonary artery aneurysms. Bronchial artery embolization (BAE) has been shown to be an effective treatment to control massive haemoptysis. Most authors reserve surgery for cases refractory to repeated BAE.
- 1.3 The imaging modalities pertinent to the evaluation of non-massive haemoptysis include chest X-ray (CXR) and CT thorax.

### 2 Plain radiograph

- 2.1 CXR is efficacious in the initial evaluation.

### 3 CT and CT angiography

- 3.1 Contrast-enhanced CT is useful for localizing the bleeding site and diagnosing the underlying cause.
- 3.2 CT angiogram performed with MDCT allows non-invasive, rapid and detailed assessment of lung and thoracic vasculature. It is possible to delineate abnormal bronchial and non-bronchial arteries using a variety of reformatted images, which can serve as a roadmap to guide therapeutic embolization procedures. Hence, it should be performed prior to BAE if embolization is anticipated.

### 4 Angiography

- 4.1 Angiography is performed prior to treatment such as BAE, or for confirming the diagnosis and for the treatment of AVM.
- 4.2 BAE has been proven to be an effective treatment for massive and recurrent hemoptysis, either as first-line treatment or as an adjunct to elective surgery.

## REFERENCES

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