

An unusual presentation of pulmonary artery dissection

A morbidly obese woman presented with exertional dyspnoea and leg swelling. Past medical history included deep venous thrombosis and atrial fibrillation. Arterial blood gases demonstrated chronic respiratory acidosis and type 2 respiratory failure. Further evaluation consisted of spirometry (restrictive defect), Epworth scoring, overnight pulse oximetry (median oxygen saturation 68%) and echocardiography (pulmonary artery pressure 59 mm Hg). CT pulmonary angiography excluded signs of acute or chronic thromboembolism but demonstrated a 4 cm long dissection flap in the lower lobe segmental branch of the left pulmonary artery (fig 1).

DISCUSSION

This case is unique, representing chronic segmental pulmonary artery dissection secondary to cor pulmonale and pulmonary hypertension from a combination of obstructive sleep apnoea and obesity hypoventilation in a living patient. No earlier publications have shown imaging of the dissection origin in such a distal vessel.

Pulmonary artery dissection is a serious complication of pulmonary arterial hypertension. To date, 63 cases have been reported in the literature, and only 8 in living patients.¹ The majority are diagnosed at post-mortem examination when sudden death occurs, most commonly from cardiac tamponade as the vessel dissects into the pericardium. As well as cardiogenic shock, other features documented are chest pain (occurring in 67%), dyspnoea (82%) and central cyanosis (52%).¹

To our knowledge, only six previous cases have had radiological evidence of pulmonary artery dissection.² These

Learning points

- ▶ A case is described of chronic segmental pulmonary artery dissection secondary to cor pulmonale and pulmonary hypertension.
- ▶ No previous publications have shown imaging of the dissection origin in such a distal vessel.

demonstrated dissection in the main pulmonary trunk, which is the affected site in 80% (usually without involvement of its branches).¹

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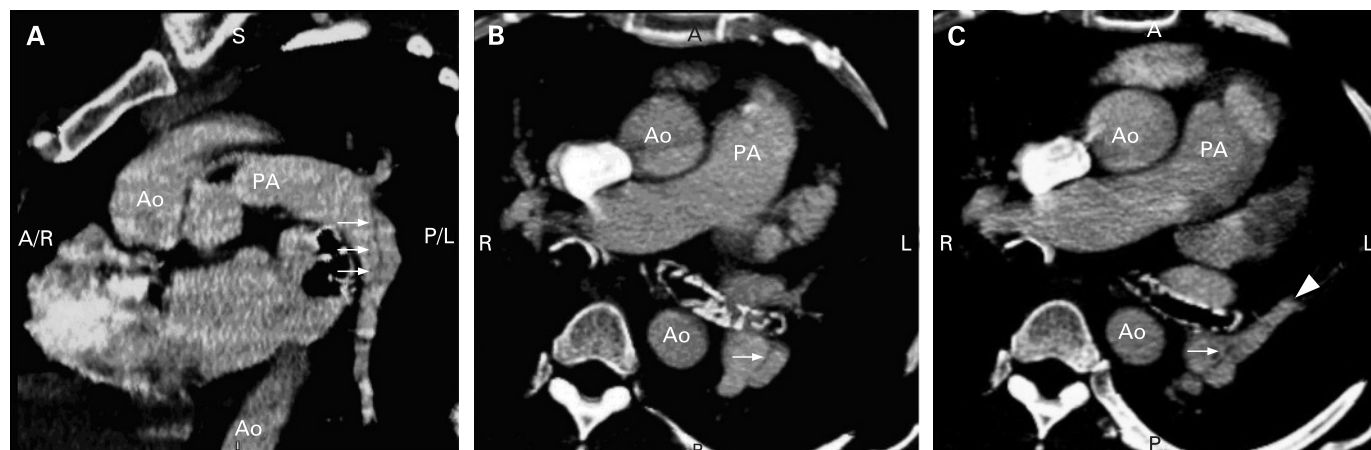


Figure 1 (A–C) Volume rendered oblique coronal and axial images showing the relationship of the dissection flap (short arrows) to the left lower lobe pulmonary artery. The dissection commences immediately proximal to the lingular segmental artery branch (arrowhead, fig 1C). Ao, aorta; PA, pulmonary artery.