

CASE REPORT

Uniportal VATS retrieval of an endobronchial coil migrated through pericardium

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Abstract

Endobronchial insertion of nitinol coils is a minimally invasive treatment strategy for selected patients with advanced emphysema. Although coil migration into the pleural space has been described by Marchetti *et al.* (Endobronchial coil penetration into the pleural space. *Thorax* 2018;73:890–1) [1], breach through the pericardium has not been reported to date.

CASE REPORT

A 61-year-old man presented with 2 weeks of pleuritic chest pain and small-volume haemoptysis. He had undergone left lower lobe endobronchial coil insertion 6 months prior. Computed tomography scanning revealed perforation of the lung parenchyma and mediastinal pleura by an endobronchial coil (Fig. 1), with its tip penetrating the pericardium and abutting myocardium. Trans-thoracic echocardiography demonstrated a sub-centimetre pericardial collection along the inferior cardiac wall without cardiac tamponade.

Via a single 4 cm incision for video-assisted thoracoscopic surgery (VATS) (Fig. 2), the embedded endobronchial coil was carefully manipulated out of the superficial lung parenchyma

and epicardial fat, and wedge resection of the damaged lung performed. There was no penetrating cardiac injury. The patient made an uneventful recovery.

DISCUSSION

Uniportal VATS management of endobronchial coil migration through the pericardium has not been reported before. Haemorrhage, coil migration, pneumomediastinum, respiratory failure and the erosion of coils into major vessels were identified as theoretical adverse events [2]. Delayed coil migration should be considered within the differential diagnosis for patients presenting with chest pain and haemoptysis months following endobronchial coil implantation.

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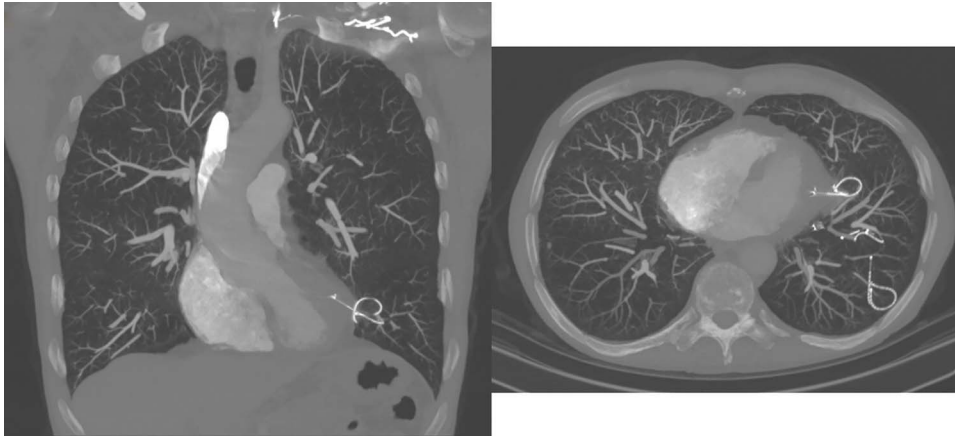


Figure 1: CT scan showing migrated coil.

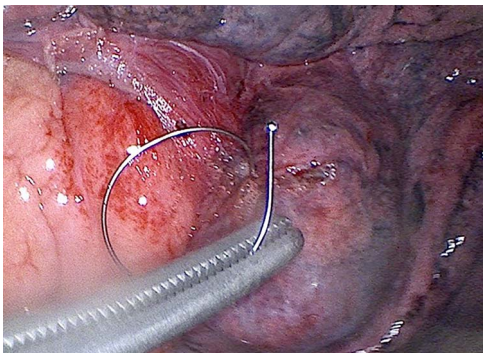


Figure 2: Thoracoscopic image of coil on retrieval.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

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1. Marchetti G, McCracken DJ, Rahman NM. Endobronchial coil penetration into the pleural space. *Thorax* 2018;**73**:890–1.
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