

Spontaneous rupture of an intercostal artery aneurysm during air flight

Pleural haematoma secondary to spontaneous rupture of an intercostal artery aneurysm is extremely rare but can be life-threatening. Most documented cases have been associated with coarctation of the aorta or neurofibromatosis type 1,¹ or occur following trauma² or thoracic surgery.

A 73-year-old man on warfarin presented with right shoulder pain and breathlessness during air travel. He had no history of trauma, rib fractures or stigmata of neurofibromatosis. His INR was 2.7. His chest radiograph demonstrated a right pleural opacity later revealed to be an extrapleural haematoma

(fig 1A). He became haemodynamically unstable following attempted pleural aspiration and required initial intubation and inotrope support. A contrast-enhanced CT scan revealed an isolated right fifth intercostal artery aneurysm (fig 1B). Angiography allowed therapeutic embolisation with Spongostan particles and right thoracotomy to evacuate the clot (fig 1C). This case illustrates well the potential life-threatening nature of these aneurysms¹ and suggests that prompt intervention is merited whenever these lesions are detected.



Figure 1 (A) Chest radiograph showing a pleurally-based opacity occupying the majority of the right hemithorax. (B) Contrast-enhanced CT image at the level of the aortic arch showing a heterogeneous pleurally-based mass with a medial rim of fat. (C) Selective digital subtraction angiogram of the right fifth intercostal artery confirming an intercostal artery aneurysm that was subsequently embolised.

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Learning points

- ▶ Isolated intercostal artery aneurysms can occur rarely.
- ▶ Spontaneous rupture of intercostal artery aneurysms can cause life-threatening haemorrhage.
- ▶ Identification of an intercostal artery aneurysm should prompt therapeutic embolisation.

REFERENCES

1. **Dominguez J**, Sancho C, Escalante E, *et al*. Percutaneous treatment of a ruptured intercostal aneurysm presenting as massive hemothorax in a patient with type 1 neurofibromatosis. *J Thorac Cardiovasc Surg* 2002;**124**:1230–2.
2. **Seishiro S**, Hisato T, Hajime K, *et al*. Intercostal artery pseudoaneurysm due to stab wound. *J Vasc Surg* 2005;**2**:352–6.