
**Clinical Vignette**

Paradoxical embolism with an intact interatrial septum

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A 71-year-old woman with a recent onset of recurrent transient ischaemic attacks was referred for further diagnostic assessment. Stroke occurred each time shortly after performing a Valsalva manoeuvre. The patient mentioned a stable dyspnoea NYHA II, a mildly reduced exercise capacity, and no history of palpitations.

Transoesophageal echocardiography could not detect an intracardiac right-to-left shunt, but showed a delayed appearance of a massive amount of contrast bubbles in the left atrium. By evaluating each pulmonary vein, the contrast flow originated only from the right superior pulmonary vein (Panel A). These findings suggested the presence of a pulmonary arterio-venous malformation in the right superior pulmonary lobe, causing recurrent paradoxical embolisms. The diagnosis was confirmed by a CT-scan of the chest. The fistula was located anteriorly in the right upper pulmonary lobe, with a hypertrophied supplying artery and draining vein (Panel B, arrow).

The patient was re-admitted for (selective) pulmonary angiography and fistula occlusion. The arterio-venous fistula was selectively cannulated and injected with contrast (Panel C). The fistula was successfully coiled with a COOK MWCE-8-PDAS coil (William Cook, Europe). No residual shunt nor damage to the native, non-fistulous parenchyma, was present (Panel D). However, to prevent embolization of thrombus distal of the coil, a vitamin K-antagonist was initiated for a period of 6 months.