Pulmonary artery sheath haematoma with pulmonary arterial compression: a rare complication of type A aortic dissection mistaken for aortitis

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An 89-year-old woman with a history of hypertension and temporal arteritis treated with corticosteroid therapy presented complaining of moderate right-sided chest pain with shortness of breath beginning 1 day earlier. She had no fever, vomiting, syncope, or light headedness. CT aortography showed hyperattenuating aortic wall thickening with unenhanced imaging (arrow, Panel A, and crescentic low attenuation thickening following i.v. contrast administration (arrow, Panel B, Figure S1B), interpreted as type A intramural haematoma; thoracic MRI (Panel C) suggested the same. Dobutamine stress echocardiography showed no inducible ischaemic changes, and transthoracic echocardiography showed normal left ventricular function without regional wall motion abnormalities. The patient underwent transoesophageal echocardiography which demonstrated aortic wall thickening (arrows, Panels D and E, Figures S1D and S1E) and enlargement of 4.7 cm. Despite the CTA and MRI findings, the combination of the patient’s history, an elevated erythrocyte sedimentation rate of 76 mm/h (normal = 1–53 mm/h), and the consulting rheumatologist’s opinion convinced the patient’s caregivers that the aortic wall thickening was due to aortitis, not haematoma, and high-dose corticosteroid therapy was initiated. Ten days later, the patient re-presented with new onset chest pain and shortness of breath; repeat thoracic CTA showed a type A aortic dissection (arrow, Panel F, Figure S1F and S1G) with a thrombosed proximal false lumen (arrow, Panel G, Figure S1F and S1G), complicated by a pulmonary arterial sheath haematoma (arrowheads, Panel F, Figure S1F and S1G) and haemopericardium (*, Panels F and G, Figure S1F and S1G) and haemomediastinum, the latter consistent with aortic rupture. Given the CTA findings and the patient’s age, the consulting surgeon advised against emergent repair and the patient was discharged to hospice.

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