A 26-year-old man was referred to our outpatient clinic with dyspnoea on exertion. He had a history of bronchial asthma and smoking. Chest X-ray was unremarkable. Transthoracic echocardiography showed slightly dilated right-sided cardiac chambers. We performed two-dimensional transoesophageal echocardiography (2D TEE) and computed tomography (CT). 2D TEE showed that inferior vena cava (IVC) was larger than normal (Panel A and Supplementary data online, Video S1A). Coronal maximum intensity projection CT angiography image revealed anomalous drainage of a right pulmonary vein into the suprahepatic IVC (Panel B). Short-axis CT image revealed enlarged right ventricle (Panel C). Axial CT image demonstrated that medial segment of the right middle lobe lung protruded towards the left side behind the heart (Panel D, asterisk) and its pulmonary vein drained into the left lower pulmonary vein (Panel E, white arrow). Anterior segment of the left upper lobe lung drained directly the left atrium (Panel E, black arrow).

The scimitar syndrome is characterized by partial or complete anomalous pulmonary venous connection of right lung into to the IVC. Mediastinal lung herniation should be differentiated from horseshoe lung. Mediastinal lung herniation may protrude to the opposite side while horseshoe lung is characterized by fusion of the posterobasal segment of the right and left lungs. The pulmonary-to-systemic blood flow ratio was 1.3, thus surgery was not performed. To the best of our knowledge, there are no reports in the literature on mediastinal lung herniation associated with Scimitar syndrome. Multimodality imaging can establish the diagnosis and enable a correct description of this anomaly.

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.