The phantom of the chest 🚳

A 24-year-old woman presented to our hospital for control before conception. She did not have any cardiac or other systemic symptoms but her medical history was significant for frequent pneumonia due to which she required frequent antibiotic therapy. Physical examination was insignificant with normal vital signs. Lung and heart auscultation did not reveal any abnormality. Surface electrocardiography was normal. Chest X-ray revealed a curvilinear density that was parallel to the right cardiac border (Fig. 1). Left ventricular functions and left heart dimensions were normal (Video 1) but right heart chambers were mildly dilated (Video 2) in transthoracic echocardiography (TTE). Systolic pulmonary artery pressure (PAP) measured by CW Doppler over tricuspid regurgitant jet was 30 mm Hg. Aortic and pulmonary peak velocities were 1.16 m/s and 1.14 m/s respectively (Fig. 2). Transesophageal echocardiography was

planned but the patient could not tolerate. Dynamic perfusion and functional cardiac and thoracic MRI was performed to rule out any thoracic or cardiac anomaly and it demonstrated a curvilinear density in the right lung similar to that seen in the chest X-ray (Fig. 3).

What is your diagnosis?

- 1. Pulmonary sequestration
- 2. Pulmonary hypertension
- 3. Palla's sign seen in pulmonary thromboembolism
- 4. Scimitar vein

Video 1. TTE shows normal left ventricular function and dimensions **Video 2.** TTE shows mildly dilated right heart chambers



Figure 1. The postero-anterior chest X-ray revealing curvilinear density in the right lung

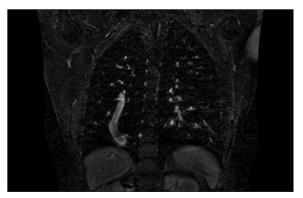
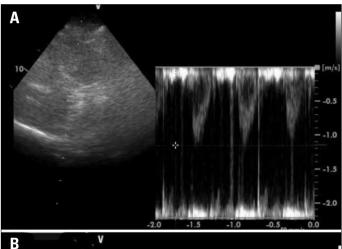


Figure 3. Coronal section of thoracic MRI shows a vascular structure extending from the mid to the distal portion of the right lung



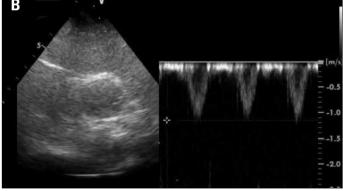


Figure 2. A, B. (A) Aortic and (B) Pulmonary peak velocities measured by pulse wave Doppler

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