

Medical Image of the Week: Pulmonary Arteriovenous Formations

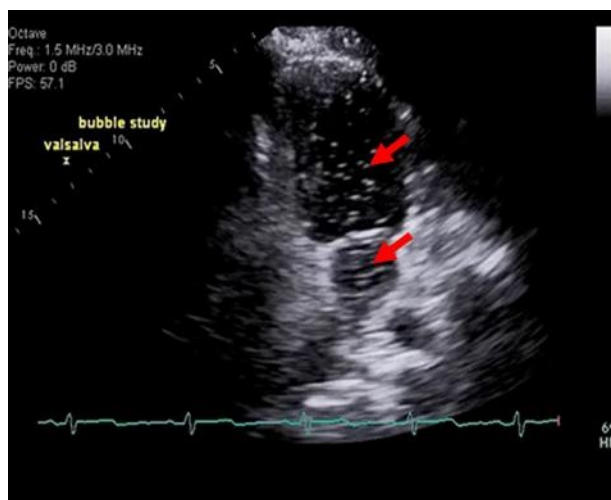


Figure 1. Static view from cardiac ultrasound showing bubbles on left side of the heart (arrows).

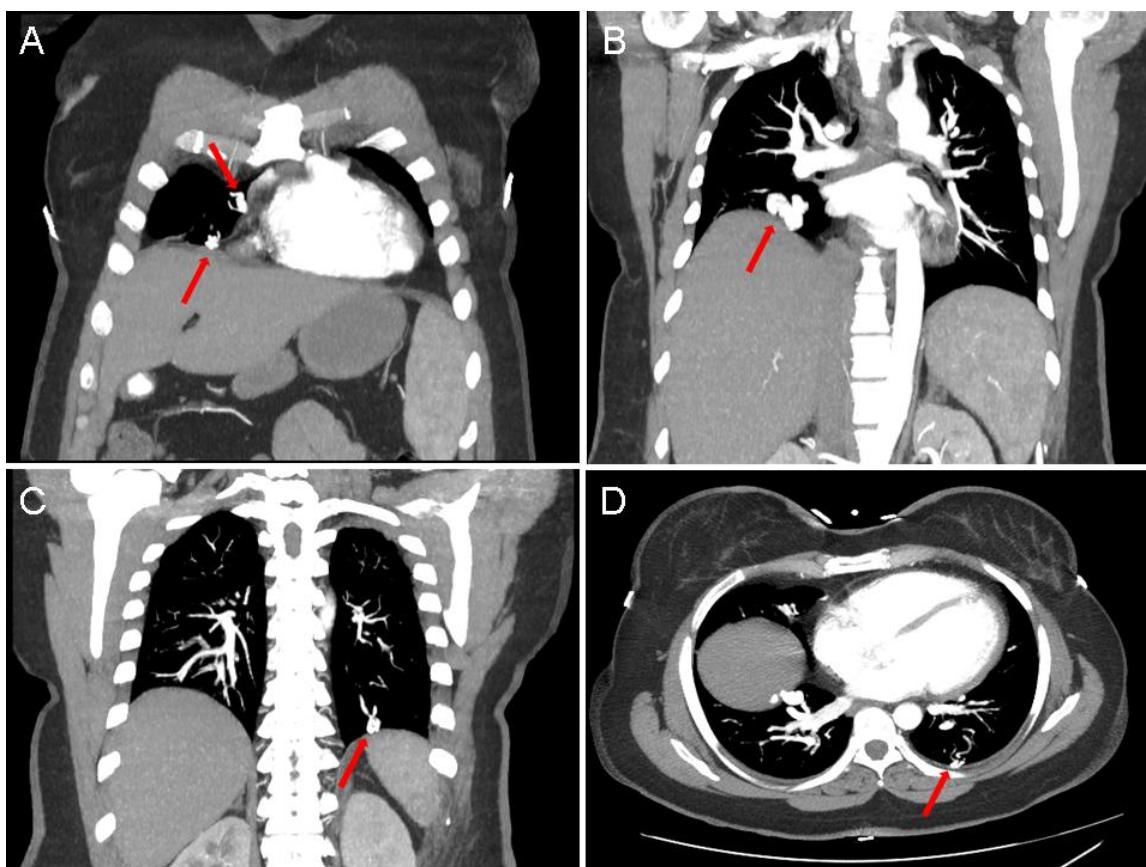


Figure 2. Thoracic CT scan showing arteriovenous malformations (AVM's, arrows).

A 34 year old woman presented to the clinic with exertional dyspnea since childhood. Oxygen saturations in clinic were 92% on room air. On review of systems she admitted to recurrent epistaxis and her daughter also suffered from frequent epistaxis. Bubble contrast echocardiography showed severe right to left shunting without evidence of intracardiac shunt (Figure 1). Computed tomography angiogram of the chest revealed multiple bilateral arteriovenous malformations (AVM's), the largest measuring 9mm on coronal images (Figure 2). MRI of the brain was negative for AVM's. She was referred to interventional radiology for microcoil embolization. She met two of four Curaçao criteria for the diagnosis of hereditary hemorrhagic telangiectasia (HHT), giving her "possible HHT". She was referred for genetic testing to confirm the diagnosis.

Chris Strawter MD and Laura Meinke MD
University of Arizona
Tucson, Arizona

References

1. Lacombe P, Lacout A, Marcy PY, et al. Diagnosis and treatment of pulmonary arteriovenous malformations in hereditary hemorrhagic telangiectasia: an overview. *Diagn Interv Imaging*. 2013;94:835-48. [\[CrossRef\]](#) [\[PubMed\]](#)
2. Gossage JR, Kanj G. Pulmonary arteriovenous malformations. A state of the art review. *Am J Respir Crit Care Med*. 1998;158:643-61. [\[CrossRef\]](#) [\[PubMed\]](#)
3. Faughnan ME, Palda VA, Garcia-Tsao G, et al. International guidelines for the diagnosis and management of hereditary haemorrhagic telangiectasia. *J Med Genet*. 2011;48:73-87. [\[CrossRef\]](#) [\[PubMed\]](#)