

Interrupted left pulmonary artery

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History

7 month old female referred for an abnormal outside echo with inability to see a left pulmonary artery

Diagnosis

Interrupted left pulmonary artery

Discussion

Proximal interruption of the pulmonary artery is when there is unilateral absence of a central pulmonary artery in the setting of a formed ipsilateral lung. This anomaly likely is due to abnormal development of the sixth aortic arch. The affected side typically is opposite the aortic arch, as in this case. The peripheral ipsilateral pulmonary arteries are supplied by systemic collateral arteries. Proximal interruption of the pulmonary artery may be associated with other cardiovascular anomalies. At chest radiography and CT, the ipsilateral lung usually appears small, a finding likely due to hypoplasia, and the contralateral lung appears hyperlucent and hyperexpanded. Ipsilateral shift of the mediastinum is present. Radiographic findings may include ipsilateral absent or diminutive appearance of the pulmonary hilum, ipsilateral narrowed intercostal spaces, and, occasionally, rib notching.

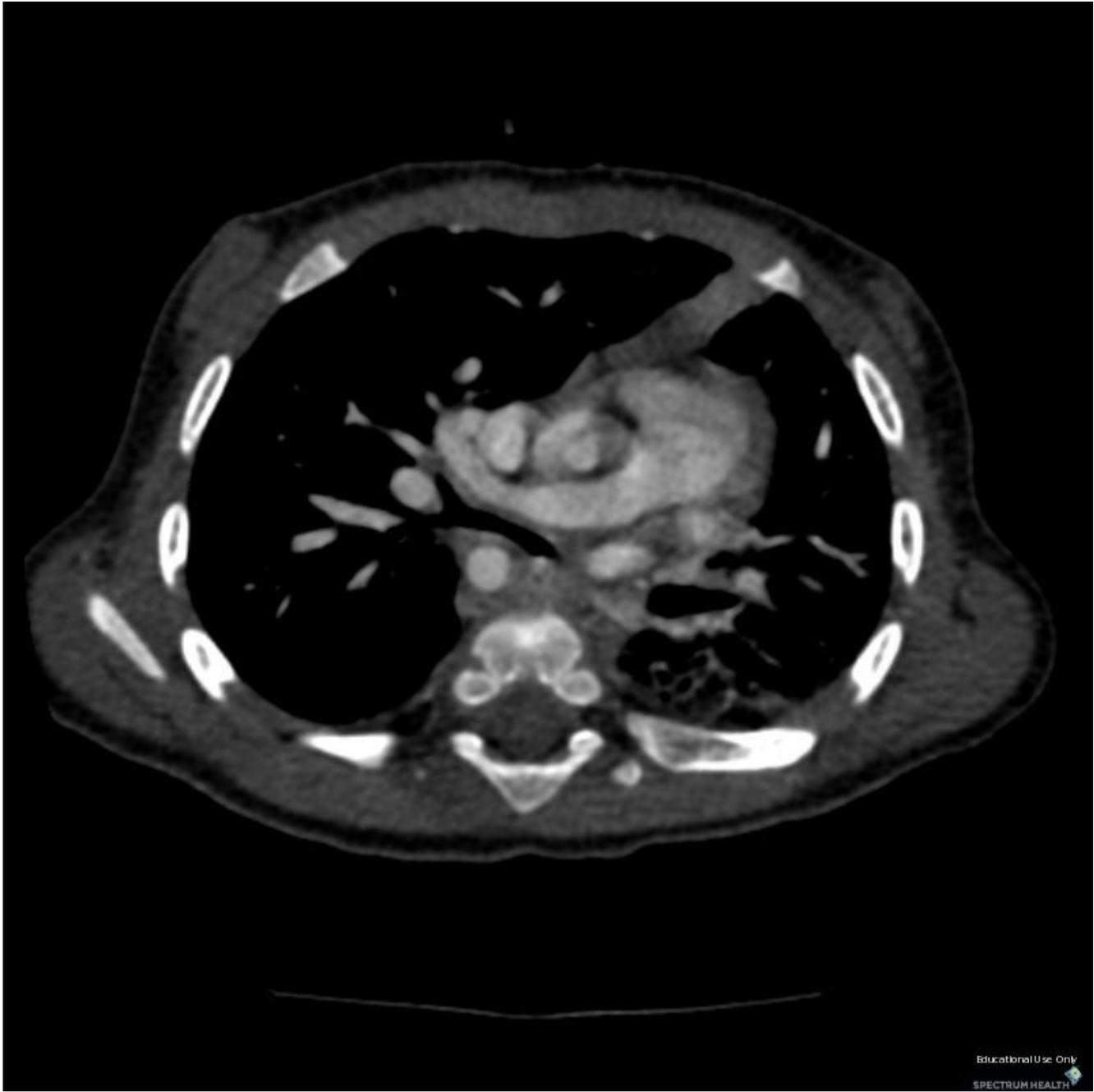
CT findings include nonvisualization of the ipsilateral central pulmonary artery, reconstitution of more peripheral pulmonary arteries from collateral vessels, and linear areas of opacification perpendicular to the pleura, a finding thought to represent transpleural collateral blood vessels.

Findings

Absent left main pulmonary artery, small left hemithorax with ipsilateral mediastinal shift, multiple collateral vessels in the left hilum and mediastinum, right aortic arch with mirror image branching.

Reference

Dillman JR, Sanchez R, Ladino-Torres MF et al. Expanding upon the Unilateral Hyperlucent Hemithorax in Children. *RadioGraphics* (2011); 31: 723-741.







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