History
Newborn with high-output congestive heart failure.

Diagnosis
Pulmonary Arteriovenous Malformation

Additional Clinical
Normal US of the brain.

Discussion
Pulmonary AVM, also known as arteriovenous fistula, is a developmental defect in the formation of normal pulmonary capillaries. Although the most common cause of pulmonary AVM is congenital, pulmonary AVM can also be acquired. Acquired pulmonary AVM is typically seen in patients with prior congenital cyanotic heart surgeries (e.g., Glenn and Fontan procedures), chronic liver disease, or a history of tuberculosis or actinomycosis. Patients with Rendu-Osler-Weber Syndrome have pulmonary AVM in up to 35%. Pulmonary AVMs pose a substantial risk of stroke or cerebral abscess occurring as a result of the right-to-left shunt. AVMs smaller than 2 cm are usually asymptomatic. However, larger lesions may result in anatomic right-to-left shunts, which may be complicated by a reduction in arterial oxygen saturation, polycythemia, or paradoxical emboli. Pulmonary AVMs larger than 2 cm are usually treated with endovascular coil embolization or balloon occlusion.

Findings
CR-Focal opacity in right lung. Various support tubes and catheters.
US-Multiple large tubular structures in the right hemithorax showing exuberant flow on color Doppler.
CT-2D maximum intensity projection images from CT angiogram with tangle of large vessels in the anterior right lung.

Reference
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