

## Pulmonary Sequestration

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A 65-year-old diabetic woman presented with chest pain to multiple health care providers between 2009 and 2012. She was diagnosed with CAD and atrial fibrillation and treated with a Maze procedure in 2009 and a percutaneous coronary intervention to the left anterior descending artery in 2010. Due to recurrent chest pain she had four cardiac angiograms without interventions between 2011 and 2012. Following an upper respiratory infection, she presented to our hospital with one week of small amounts of hemoptysis and left-sided chest pain (6/10) with radiation to her back. She did not have fever. Her cardiac biomarkers were negative, the pain did not resolve with the administration of nitroglycerin, and her electrocardiogram did not show ischemic changes. Her

PFTs revealed a FEV1 of 2.39L (107% predicted), a DLCO of 20.79 ml/min/mmHg (98.5% predicted), and normal lung volumes.

Bronchoscopy did not reveal the source of bleeding, and a CT angiogram of the aorta showed an aberrant vessel at the left lung base (Figures).

Based on these images a diagnosis of pulmonary sequestration was made, and the patient had a left lower lobectomy. The specimen was confirmed by pathology to be an extralobar pulmonary sequestration.

Pulmonary sequestrations are fragments of normal lung tissue that lack continuity with the tracheo-bronchial tree and receive their blood supply from the systemic circulation.<sup>1</sup> Seventy-five percent of sequestrations are in a lower lobe (left > right) and are intralobar.<sup>1</sup> Twenty-five percent of sequestrations are

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extralobar and consist of accessory lobes with their own pleural lining. These are commonly found between the diaphragm and the lower lobe of the lung.<sup>2</sup> The blood vessels to extralobar sequestrations are often from the thoracic or abdominal aorta.<sup>3</sup> Sequestrations usually present before the age of 20.

In this case an extralobar pulmonary sequestration was identified late in life, had typical blood supply arising from the abdominal aorta, and was located between the left lower lobe and the diaphragm. The chest pain and the hemoptysis resolved after the excision of the anomaly.

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