**Imaging description**

Pulmonary sequestration is uncommon and can be divided into intralobar and extralobar types, depending on specific morphologic features. In general terms, sequestration refers to lung tissue that is isolated from the tracheobronchial tree [1–3]. Intralobar sequestration accounts for 75% of all pulmonary sequestration and consists of an abnormal segment of lung located within otherwise normal lung. Blood supply is via anomalous systemic vessels arising from the aorta (Figures 16.1–16.3), which typically travel within the inferior pulmonary ligament [1–3]. Most intralobar sequestrations are drained by normal pulmonary veins into the left atrium. Intralobar sequestration typically occurs within the lower lobes, more frequently on the left. Air-bronchograms, bronchiectasis, or cavitation can be seen. Although cases can be congenital, most cases are acquired, likely on the basis of early childhood infection.

**Importance**

Intralobar sequestrations are a cause of recurrent infections and while uncommon, the imaging features allow for a specific diagnosis. Recognition of the anomalous systemic vessels is also important when resection is planned.

**Typical clinical scenario**

Intralobar sequestration is typically diagnosed in early adulthood. Most patients are symptomatic, with chronic cough, sputum, recurrent pneumonia, or hemoptysis. Males and females are equally affected.

**Differential diagnosis**

The typical radiographic appearance is a homogeneous region of consolidation with smooth or lobulated borders. The differential diagnosis would include a focus of recurrent or nonresolving pneumonia, aspiration, organizing pneumonia, or neoplasm.

**Teaching point**

Intralobar sequestration, while uncommon, should be considered when a region of persistent focal consolidation is identified, especially when it occurs within the lower lobes. The identification of a systemic vascular supply confirms the diagnosis.

**References**

Figure 16.1 Intralobar sequestration. 

A. Contrast-enhanced CT showing an irregular area of consolidation in the left lower lobe with air/fluid level (arrow). 

B. Image lower in the chest shows the large anomalous arterial supply to the sequestration (arrow) that arose from the celiac axis. Elevation of left hemidiaphragm was also present.

Figure 16.2 Intralobar sequestration from the same patient as Figure 16.1 prior to the infection of the sequestration. Note the multiple irregular airspaces of the lesion (arrowheads) and the irregular vessel with abnormal orientation in the left lower lobe posteromedially which is the anomalous arterial supply (arrow).
Figure 16.3 CT chest of intralobar sequestration. A. Lung windows, B. soft tissue windows, and C. coronal maximum intensity projection (MIP) reconstructed image with lung windows. Multifocal consolidation in the left lower lobe with a large anomalous vessel along the medial aspect of the consolidation (arrows). This vessel is seen to course inferomedially on the MIP image and eventually this vessel connected with the aorta. The extent of the sequestration is better appreciated on the MIP image as the area of decreased attenuation and vascularity (arrowheads) that extend beyond just the consolidated portion.