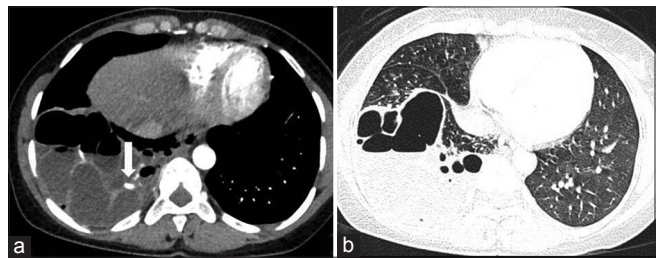


## Pulmonary sequestration with aberrant arterial supply from right renal artery

Sir,

Intralobar pulmonary sequestration is characterized by the presence of nonfunctional lung parenchyma receiving blood supply from a systemic artery and lacking normal communication with tracheobronchial tree.<sup>[1]</sup> Commonly sequestration is supplied by artery from descending thoracic aorta and abdominal aorta. Here, we report a case of intralobar pulmonary sequestration having arterial supply from the right renal artery.

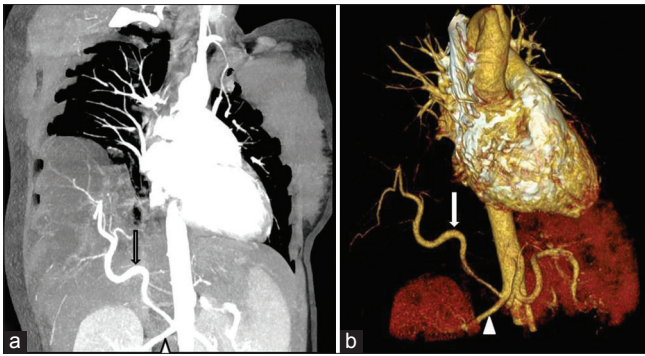
A 30-year-old female presented with repeated episodes of right-sided chest pain, intermittent fever, and cough since 10 years. X-ray chest showed a relatively well-defined radiopacity in the right lower lung zone with a rounded border superiorly and obscured the right hemidiaphragm inferiorly. Contrast enhanced CT of the chest demonstrated a multiseptated cystic segment of the lung in the right lower lobe, some of the locules showing air-fluid levels [Figure 1]. An aberrant artery was seen arising from the proximal right renal artery 4-mm distal to its origin and coursing upward



**Figure 1:** Axial contrast-enhanced computed tomography mediastinal (a) and lung (b) window shows multicystic sequestered segment of the lung in the right lower lobe with few internal air-fluid levels. A small segment of the aberrant feeding artery (arrow in a) is also seen

to the right thorax to supply this abnormal segment of the lung [Figure 2]. The venous drainage of the segment was through the inferior right pulmonary vein.

Pulmonary sequestration comprises dysplastic lung tissue separated from the tracheobronchial tree and receiving its blood supply from a systemic artery rather than a pulmonary arterial branch.<sup>[1]</sup> Recurrent pneumonia and hemoptysis are



**Figure 2:** Maximum Intensity Projection with bone subtraction (a) and three-dimensional volume-rendered image (b) clearly demonstrates the aberrant artery (arrows) arising from the proximal right renal artery (arrowheads) to supply the pulmonary sequestration

the most common presentation. Pulmonary sequestration is divided into intralobar and extralobar types. Intralobar sequestration is surrounded by the normal lung tissue without separate pleura whereas extralobar type has its own pleura. Intralobar pulmonary sequestration is the more common type, presents in older children and adolescents. Usually, intralobar pulmonary sequestration has a single feeding artery; however, multiple systemic arterial supply can be seen. Arterial supply of pulmonary sequestration commonly originates from thoracic aorta followed by abdominal aorta and less commonly from intercostal artery, phrenic artery, subclavian artery, pulmonary artery, left gastric artery, coronary artery, and celiac trunk.<sup>[2]</sup> Arterial supply from renal artery is very rare, only few cases have been reported.<sup>[3]</sup> CT angiography is the noninvasive diagnostic modality of choice as it can show the abnormal lung parenchyma as well as one or more abnormal arterial supply to the sequestration. Surgical removal of the sequestered segment is the treatment of choice as the sequestered lung remains to be a source of infection. It is important to identify the arterial supply and venous drainage preoperatively to prevent the injury of unidentified vessels leading to massive intraoperative hemorrhage. Preoperative embolization of the anomalous vessels may be helpful in reducing intraoperative blood loss.<sup>[4]</sup>

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be

reported in the journal. The patient understands that name and initial will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

#### Financial support and sponsorship

Nil.

#### Conflicts of interest

There are no conflicts of interest.

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<b>Quick Response Code:</b> 	<b>Website:</b> <a href="http://www.lungindia.com">www.lungindia.com</a>
	<b>DOI:</b> 10.4103/lungindia.lungindia_253_18

**How to cite this article:** Naik S, Ray B, Mohakud S, Deep N. Pulmonary sequestration with aberrant arterial supply from right renal artery. *Lung India* 2018;35:535-6.

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