Technical Aspects of Thoracoscopic Lower Lobectomy

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Disclosures

• None
**VATS Lower Lobectomy**

**Overview**

- Incisions are same for left- and right-sided resection
  - Camera stays in 8th ICS
  - Dissection and retraction through anterior access incision
- Posterior dissection
- Pulmonary vein(s)
  - Confirm presence of both veins and RML branching pattern prior to division of IPV
- Bronchial dissection
- Pulmonary artery

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Exposure

- Presence of the expected abnormality is confirmed by palpation
- Inferior pulmonary ligament; Level 9 LN
- Divide posterior pleural reflection to the level of the fissure
  - Lung retracted anteriorly
- Anterior mediastinal pleura
  - Lung retracted posteriorly
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Pulmonary Vein

- Identify both veins
  - *Beware the common vein or other anatomic anomalies*

- Circumferential dissection of inferior pulmonary vein
  - Retract the lung laterally and superiorly
  - Plane between vein and lower lobe bronchus is developed using long suction or low profile dissection clamp
  - Dissection is completed using long straight dissecting clamp

- Vein is encircled and stapled after confirming that superior segmental branch is included in dissection
VATS RLL – Pulmonary Vein Dissection
VATS RLL – Pulmonary Vein Division
The lower lobe is retracted further superiorly to expose the bronchus
Right: identify the bifurcation of the lower and middle lobe bronchi (Level 11 lymph node)
Beware the pulmonary artery branch “behind” the bronchus
Consider test clamp on bronchus prior to division
Bronchus is divided with stapler
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Bronchi and Pulmonary Arteries
VATS RLL – Bronchial Dissection
RLL – Bronchial Division

Posterior

Anterior

Spine
RLL – PA Exposure

RLL Divided

Anterior

Posterior

RLL Divided

Spine
VATS Lower Lobectomy

Artery and Fissure

• Lung is retracted to patient lateral in order to expose lower lobe arterial trunk
  – Beware “folding” the vessel on itself with too much cephalad retraction

• Circumferential dissection of arterial trunk using long straight clamp

• Division of arterial trunk using stapler

• Fissure is completed (grasper on bronchial stump) and specimen is retrieved within a protective bag.
  – Lobe is returned to native location
RLL – Division of Fissure
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