2018
28-30 JUNE
VIENNA, AUSTRIA
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

Optimizing Respiratory Function in Cancer Patients:

The Role of the Pulmonologist

Session 17 Dyspnea

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

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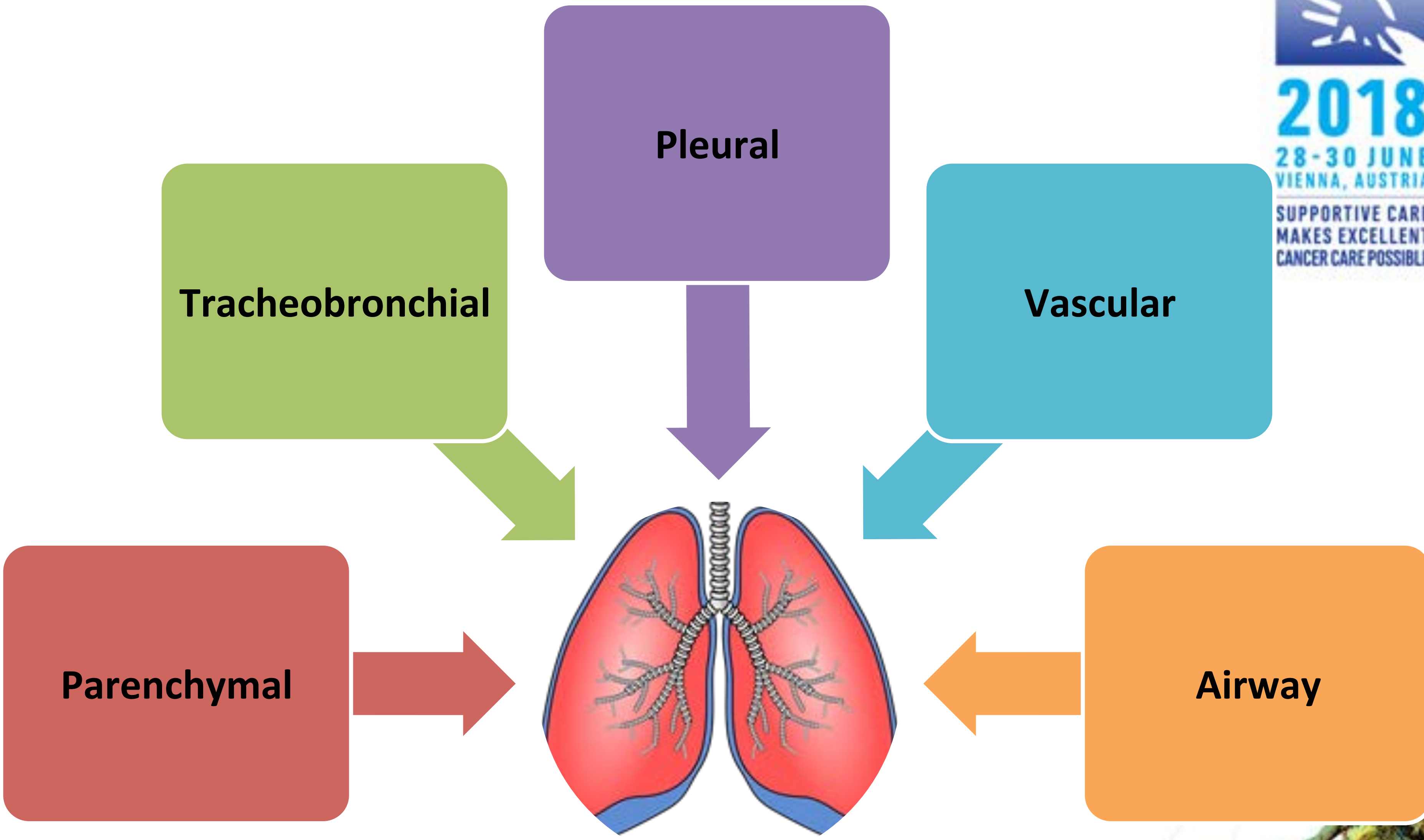
Faculty Disclosure

No disclosures

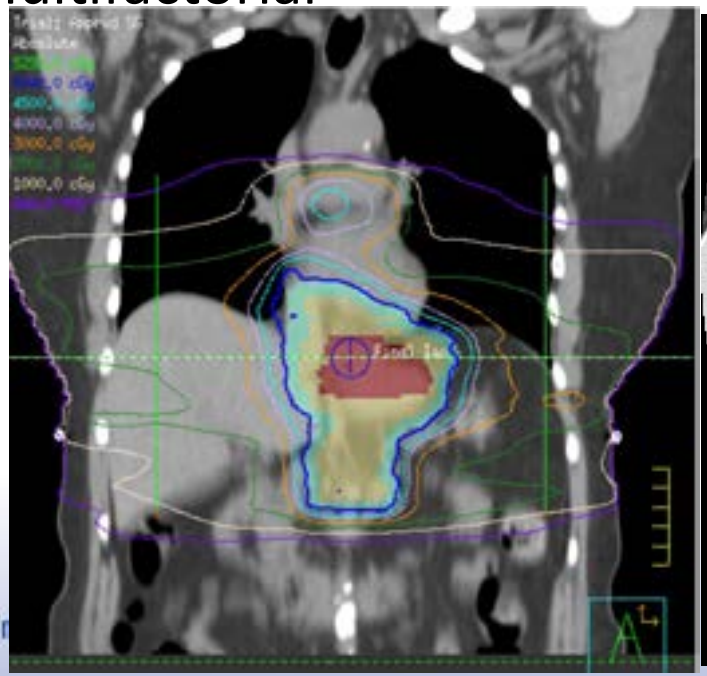

Pleural
Tracheobronchial
Vascular
Parenchymal
Airway

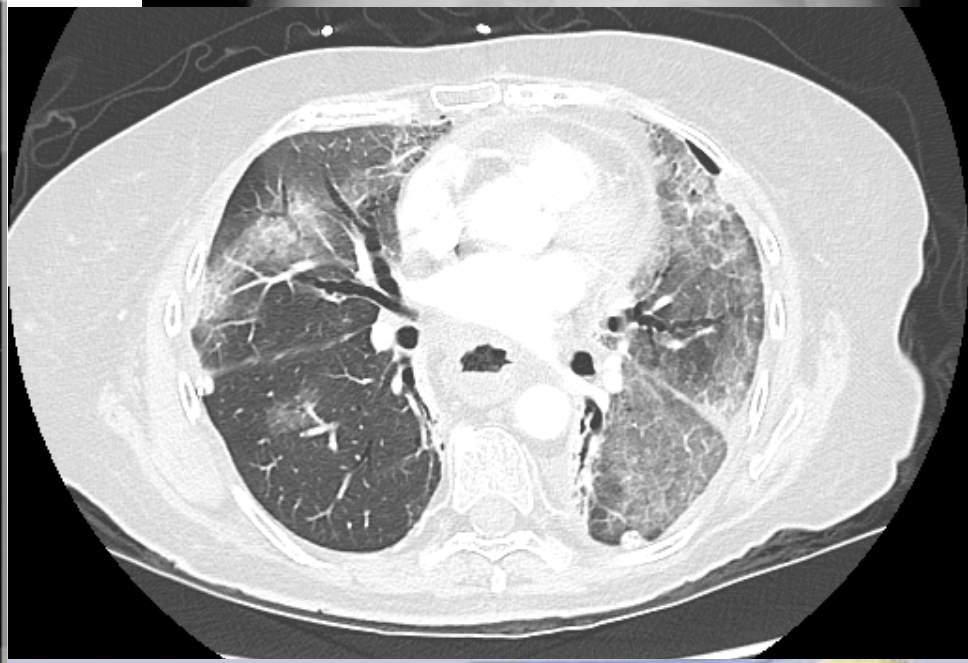
Parenchymal

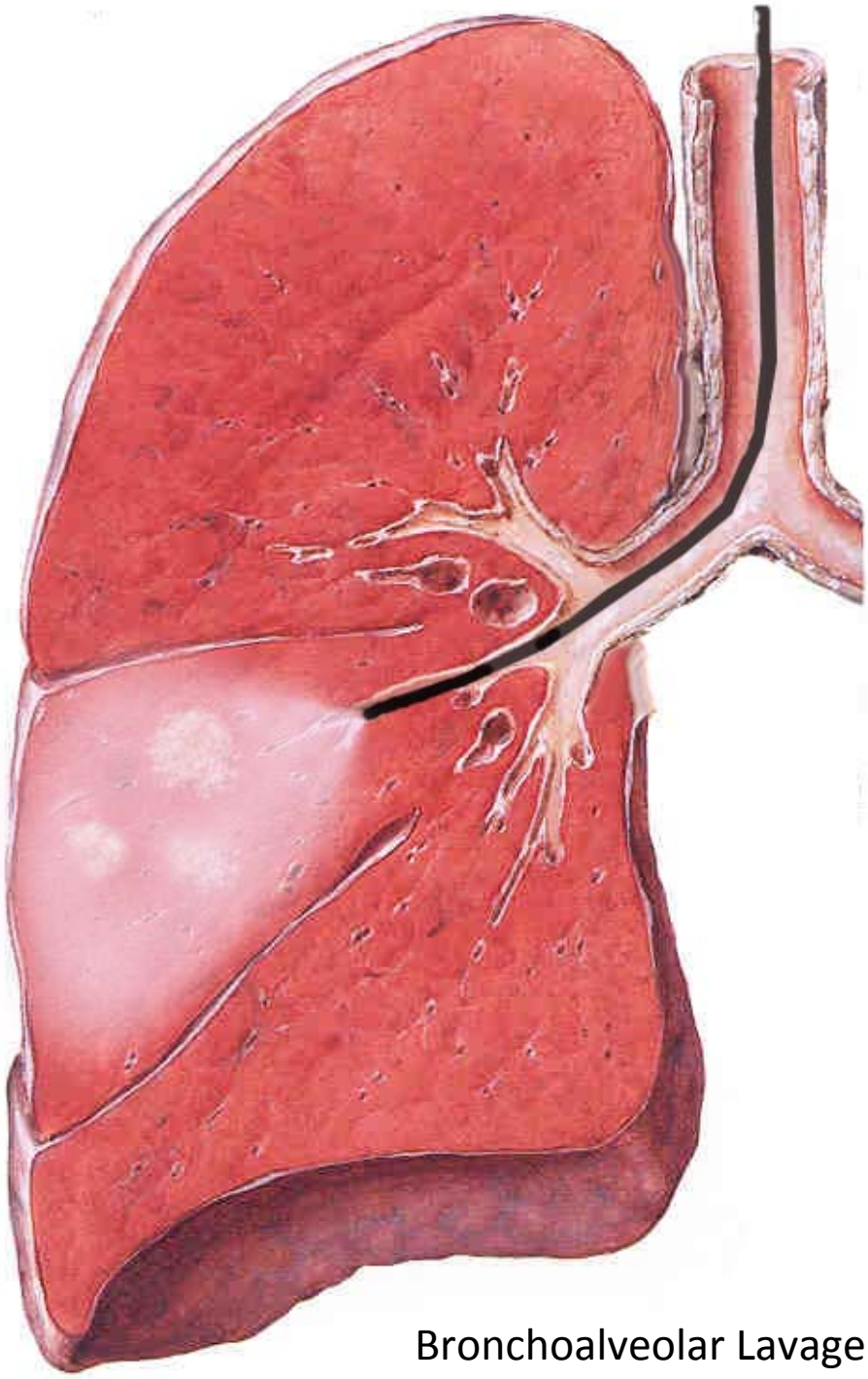
- Cancer-related
  - Infectious
  - Aspiration
  - Therapy-induced
    - Radiation
    - Chemotherapy
    - Immunotherapy
- Non-cancer related
  - Pulmonary edema
  - Interstitial lung disease

Parenchymal

- Esophageal cancer
  - Treated with 5-fluorouracil and oxaliplatin followed by radiation (50 Gy) to the esophagus
- Hypoxic respiratory insufficiency
  - Multifactorial

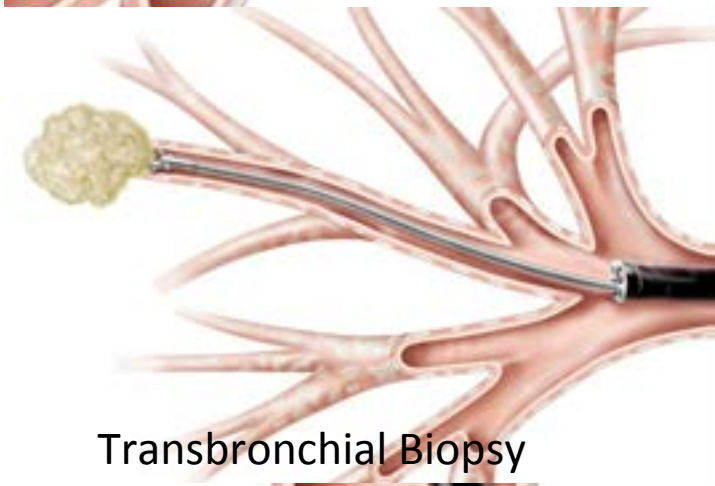






Bronchoalveolar Lavage

Endobronchial Biopsy

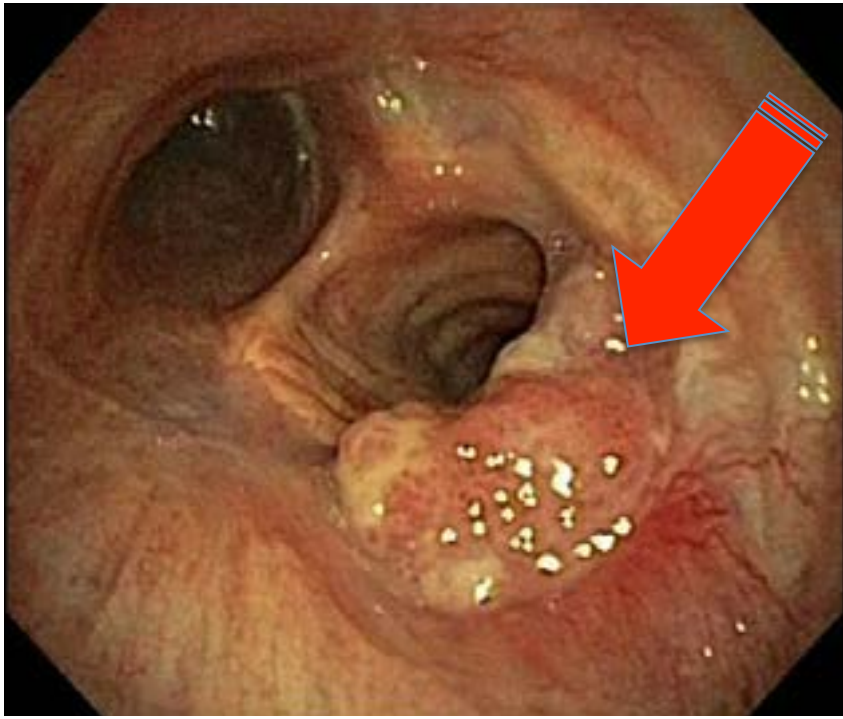


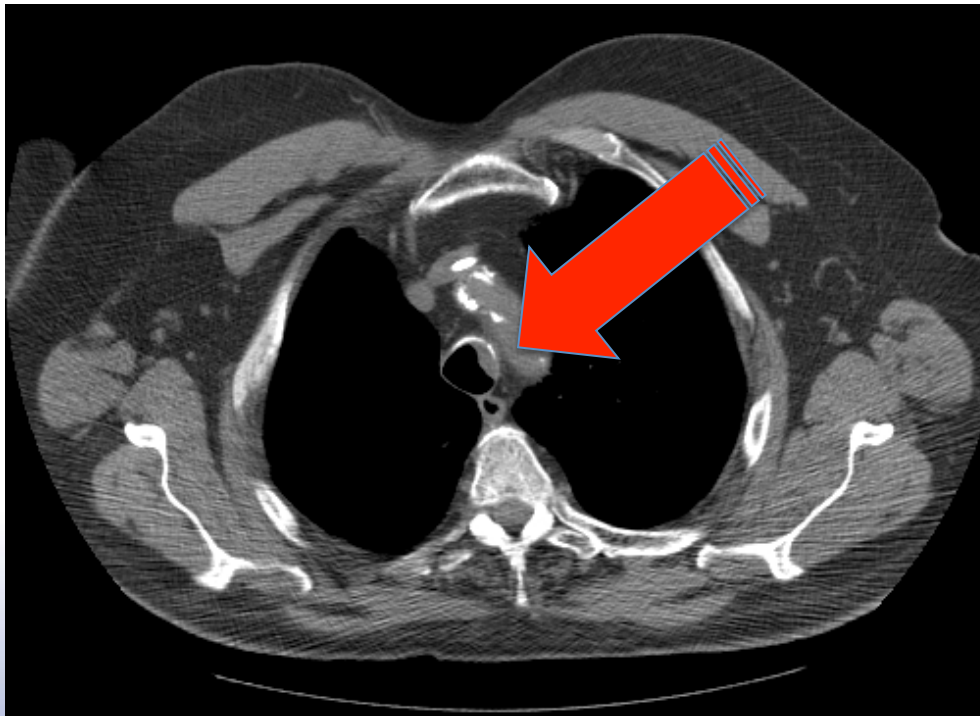
Transbronchial Biopsy

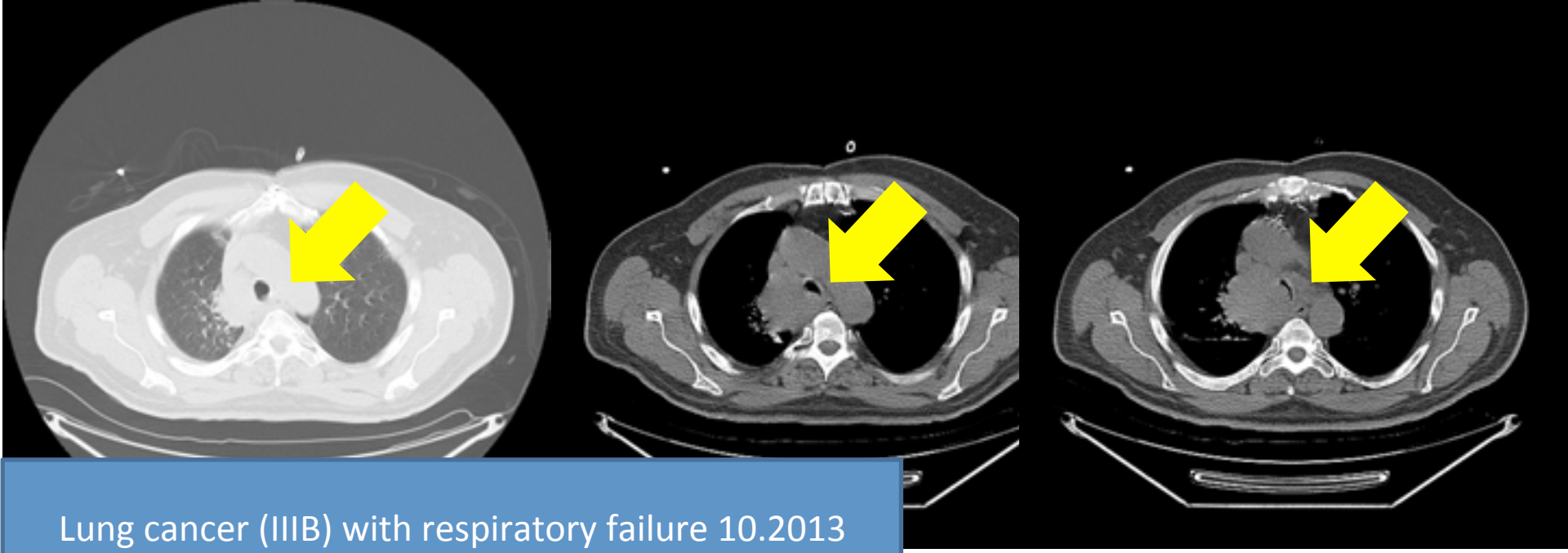
Transbronchial Needle Aspiration

Tracheobronchial

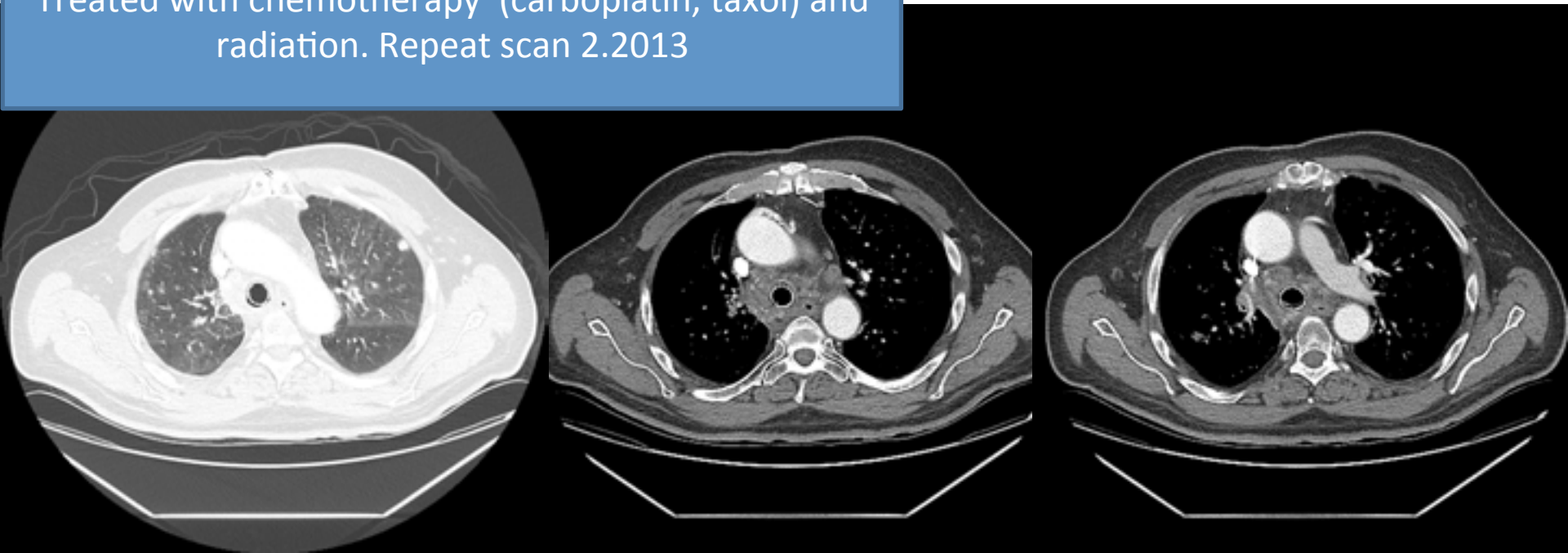
- Hemoptysis, dyspnea, stridor
- In cases of bleeding, various airway interventions (laser, cryotherapy, argon plasma coagulation)
- Consider placement of stents



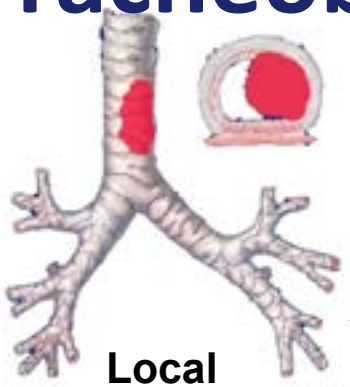




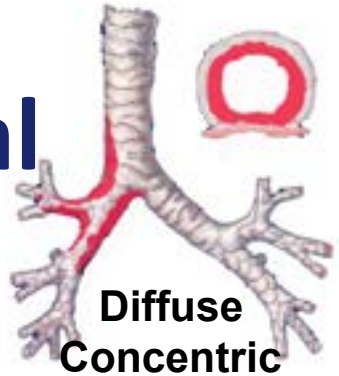
Lung cancer (IIIB) with respiratory failure 10.2013
Bronch with tumor destruction and tracheal stent
Treated with chemotherapy (carboplatin, taxol) and radiation. Repeat scan 2.2013



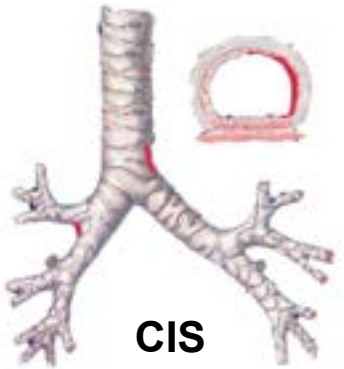
Tracheobronchial



Local
Endoluminal



Diffuse
Concentric



CIS

Brachytherapy

APC /
Nd:YAG

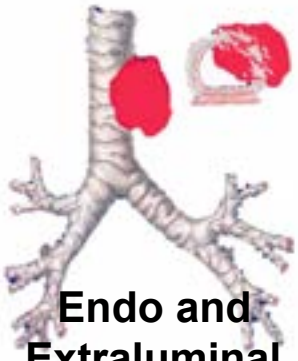
PDT / APC/
BrachyRX

TYPE OF
INTERVENTION

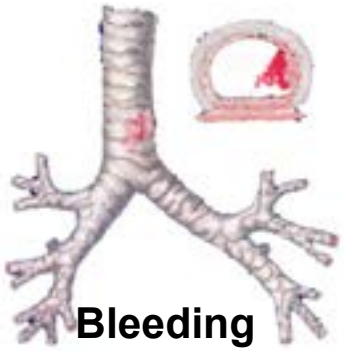
APC / Nd:YAG
Stent / BrachyRx

APC / Nd:YAG

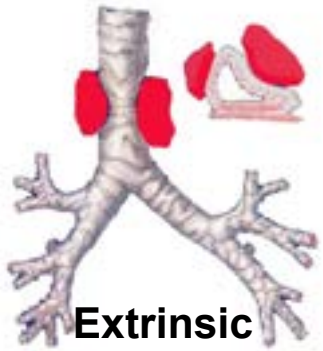
Stent



Endo and
Extraluminal



Bleeding



Extrinsic
compression

Pleural

Malignant pleural effusion

Paramalignant pleural effusion

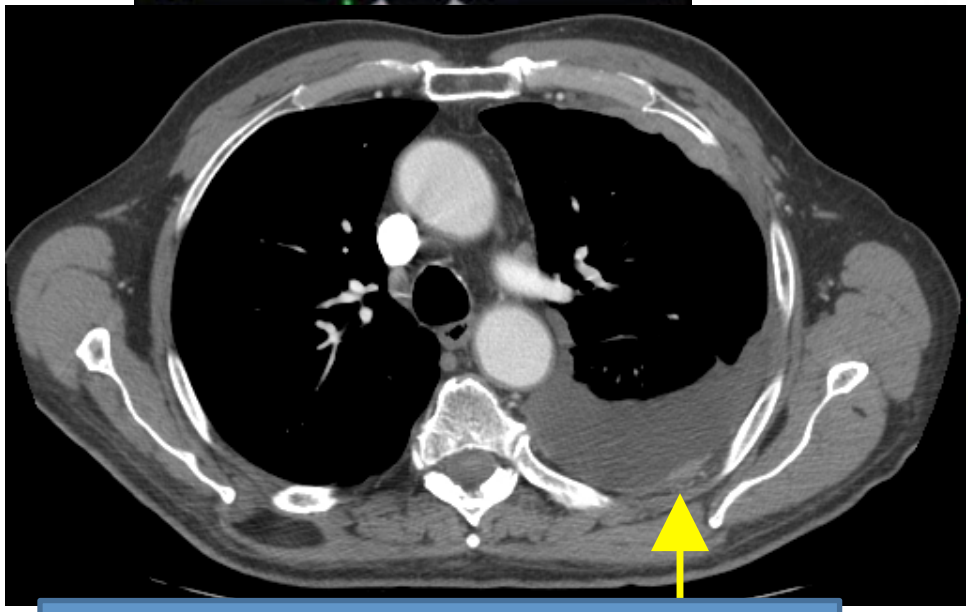
Cancer and pleural effusion

Parapneumonic effusion

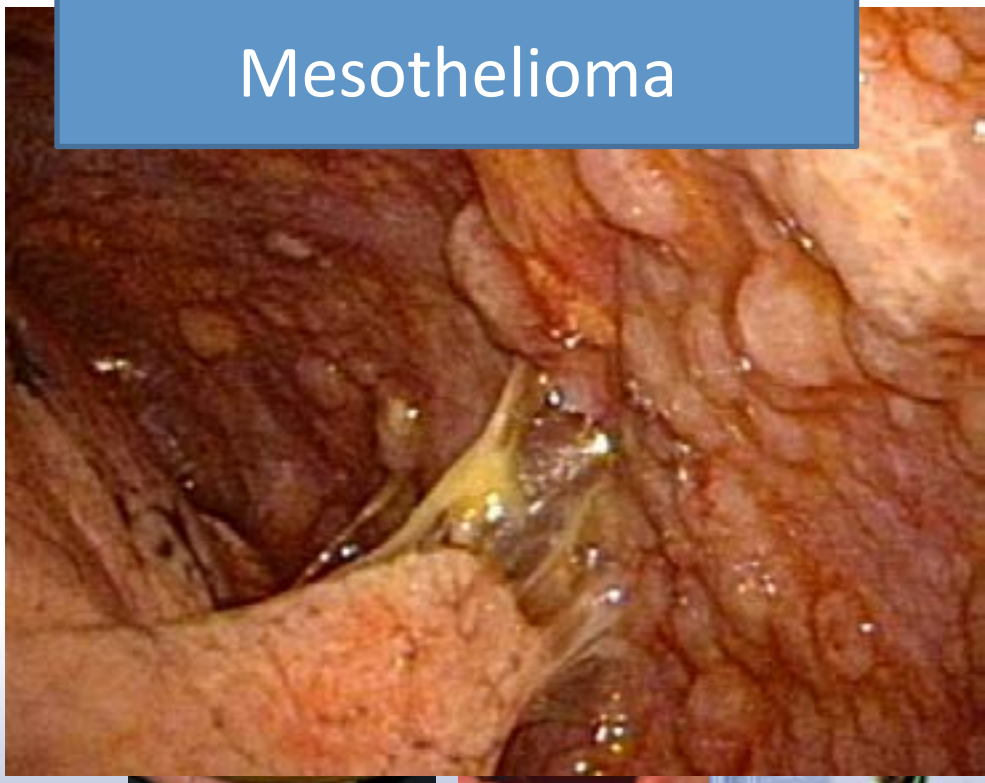
Other etiologies (cardiac, renal, liver dysfunction, drugs, thromboembolic)

Pleural

- Thoracentesis
  - Diagnostic and thereaputic
  - Bedside
  - Can be done in the setting of coagulopathy
  - Can be repeated if poor performance status or if underlying cause not responsive to systemic therapy
- Pleuroscopy
  - Diagnostic in unexplained exudative pleural effusion
  - Can be therapeutic with pleurodesis (agent, indwelling pleural catheter)

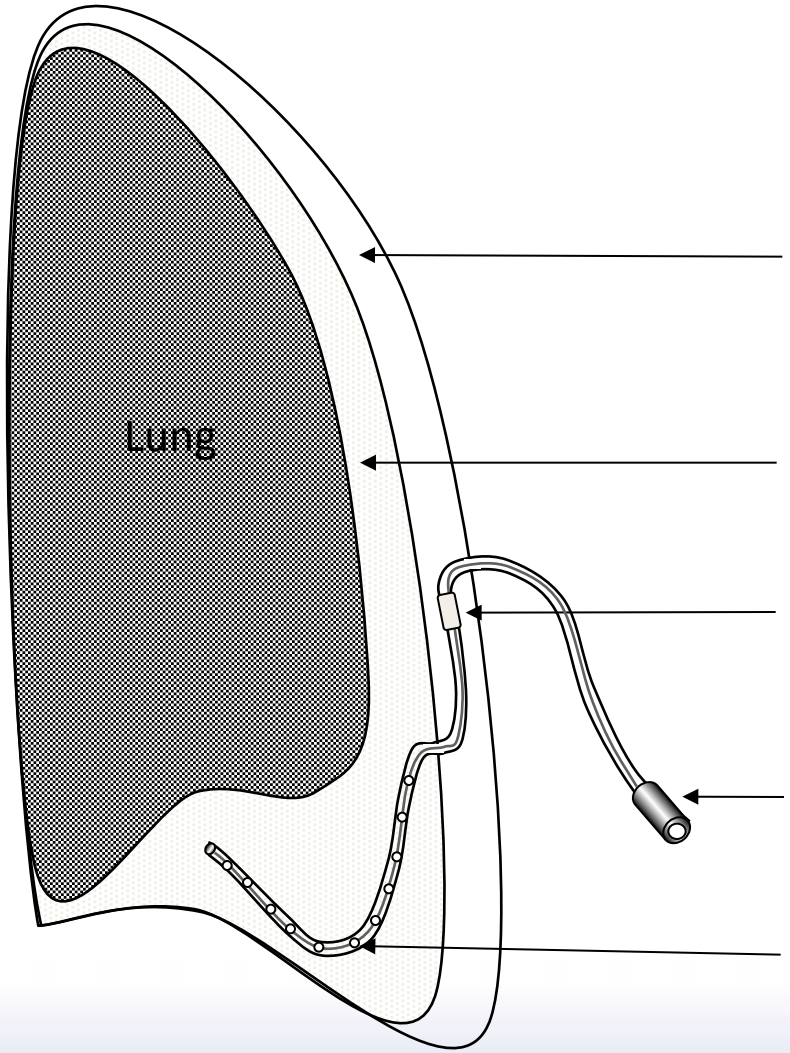


Mesothelioma



George M, *Oncologic Emergencies*, in press

Indwelling Pleural Catheter (IPC)



Chest wall

Pleural space with fluid

Subcutaneous portion of catheter with polyester cuff

External portion of catheter with valve

Intrapleural portion of catheter with fenestrations

George M, *Oncologic Emergencies*, in press

Courtesy of R. Morice, M.D.

Pleural – Malignant Pleural Effusion

Local therapy

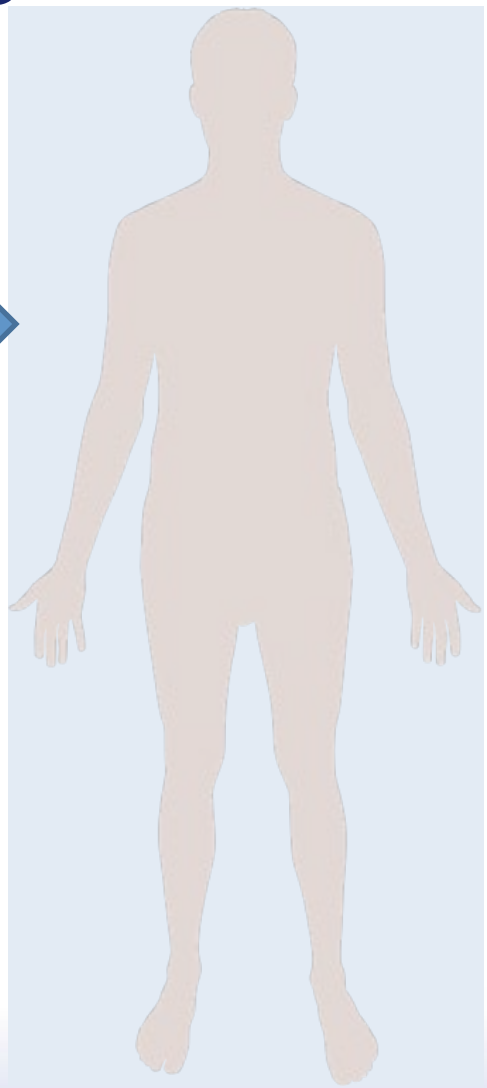
Thoracentesis

Chest tube, chemical pleurodesis
Thoracoscopic, chemical/ mechanical pleurodesis
Indwelling pleural catheter

Pleuro-peritoneal shunting

Pleurectomy (decortication)

Radiation therapy



Systemic therapy

Chemotherapy
Stem cell transplant

Oxygen

Palliation
Opioids
Hospice

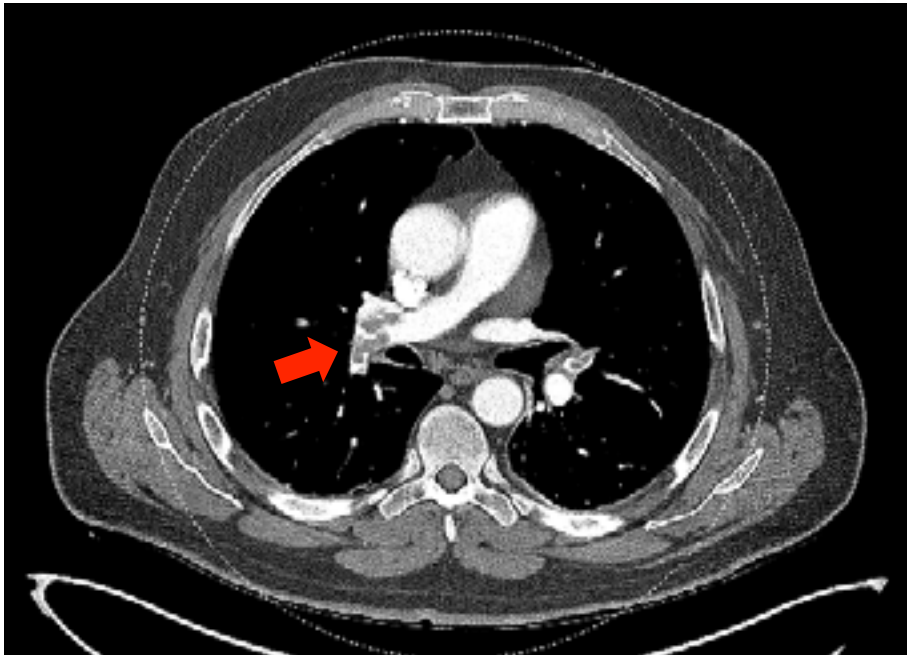
Pleural - Pleurodesis

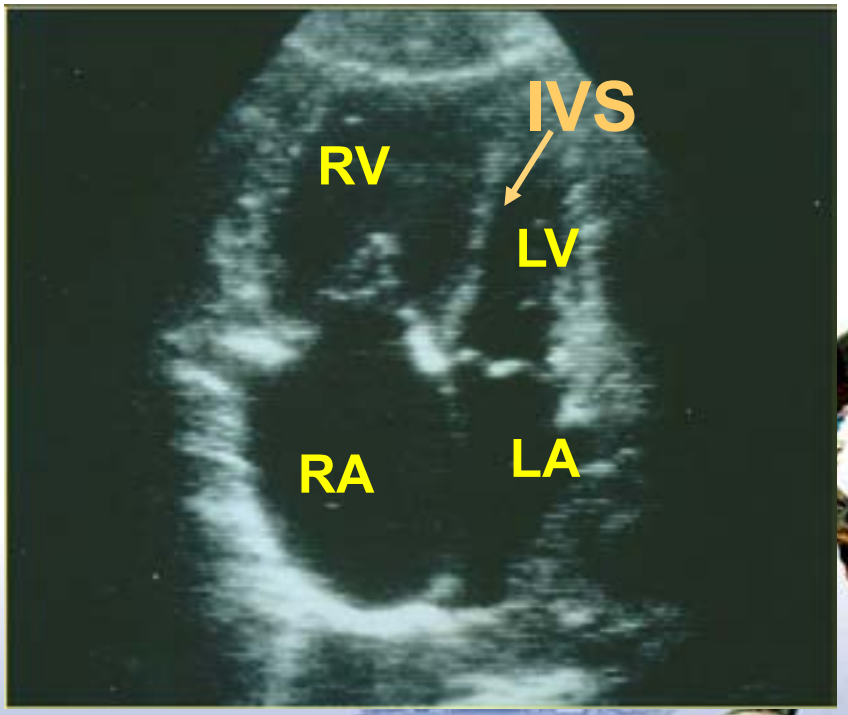
Procedures	Expected survival	Pleurodesis Rate, %	Advantages	Disadvantages
Thoracentesis	< 3 weeks	N/A	Minimally invasive, outpatient	No pleurodesis
Indwelling pleural catheter (IPC)	> 3 weeks	42 to 58	Minimally invasive, outpatient	Indwelling chronic catheter and care, two to three times per wk drainage, infection risk, tube can clog
Tube thoracostomy	> 3 months	Approximately 70	Minimally invasive, talc pleurodesis	Inpatient hospitalization, pain at tube site, limited mobility
VATS/medical thoracoscopy	> 3 months	Approximately 80	Inspection of pleura with biopsy, talc pleurodesis	Invasive, inpatient hospitalization, tube thoracostomy after procedure

Haas, CHEST September 2007

Vascular

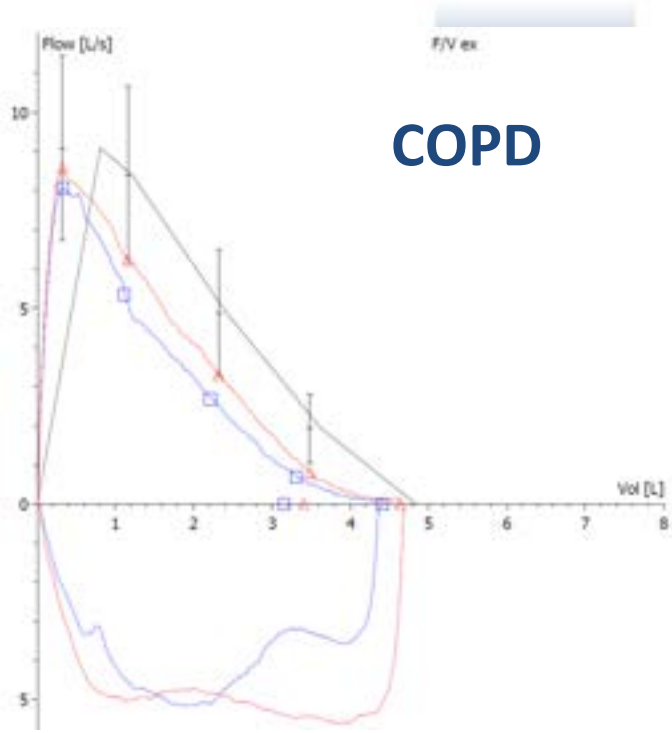
- Pulmonary embolism
  - Anticoagulation
  - Thrombolytics
  - Catheter-directed thrombolytics
- Pulmonary hypertension
  - Sequelae of pulmonary embolism
  - Related to medications
  - Oxygen
  - Specific pulmonary vasodilators



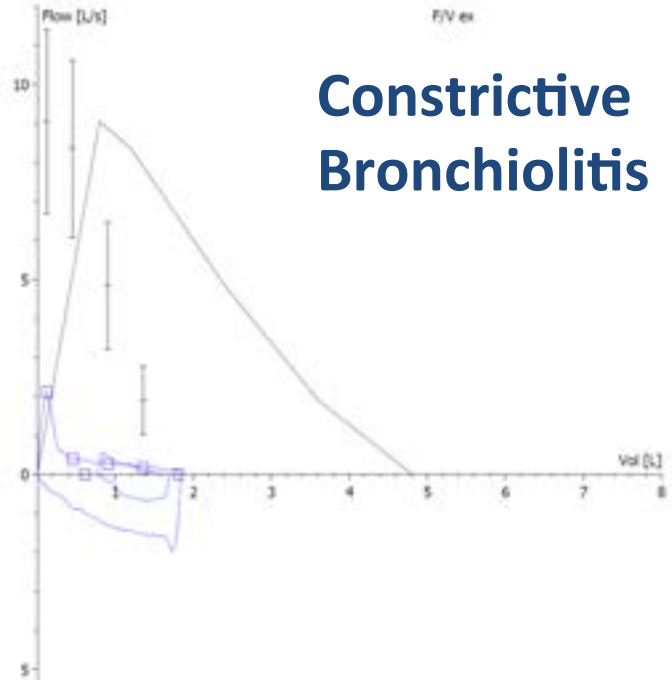


Airway

- Obstructive lung disease
  - COPD, asthma, chronic bronchitis
  - Constrictive bronchiolitis
- Restrictive
  - Neuromuscular disease
  - Kyphoscoliosis
  - Parenchymal
- Oxygen
- Bronchodilators
- Pulmonary rehabilitation



COPD



Constrictive Bronchiolitis

Supportive

- Oxygen, High flow oxygen
- Non-invasive positive pressure ventilation
- Medications

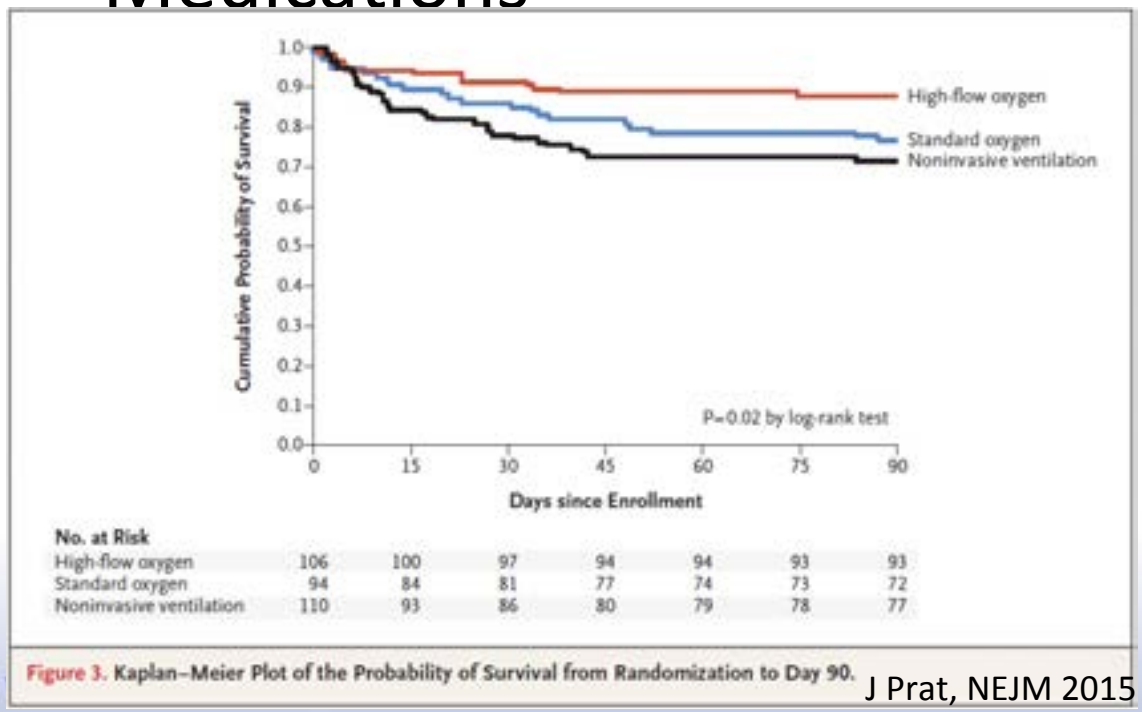
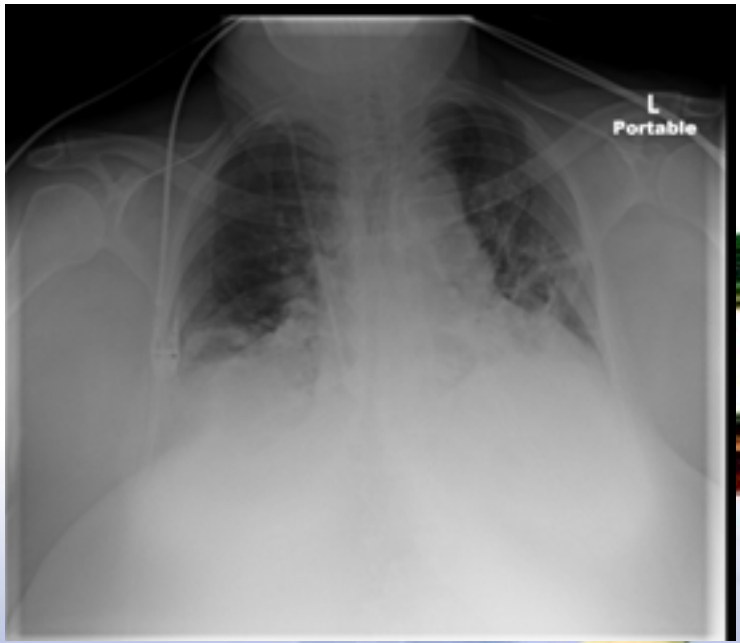


Figure 3. Kaplan–Meier Plot of the Probability of Survival from Randomization to Day 90.

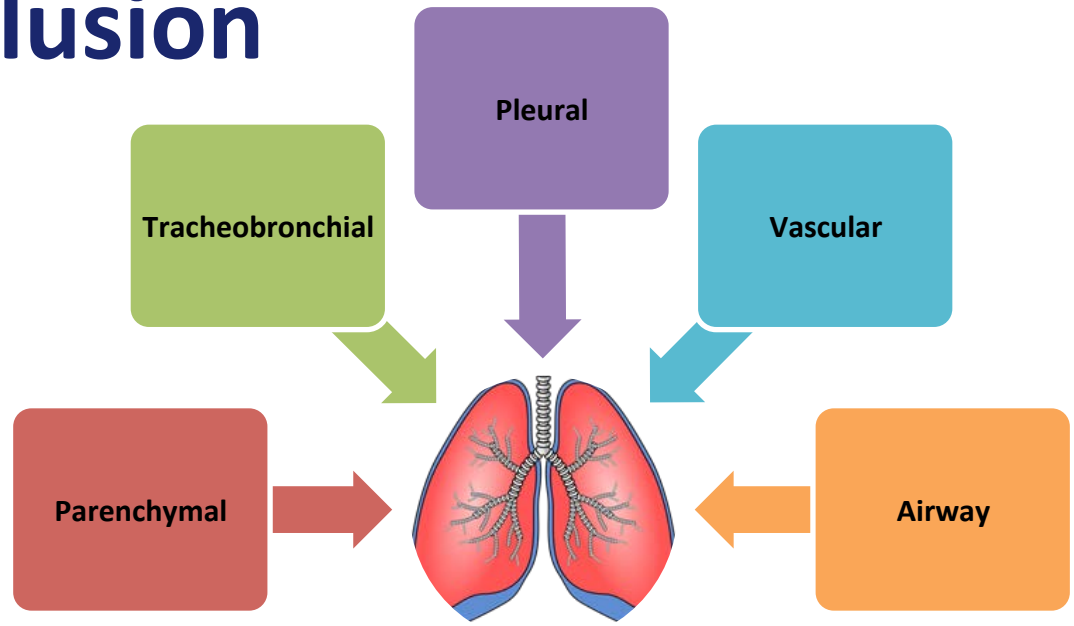
J Prat, NEJM 2015

Before BIPAP

After BIPAP



In conclusion



- Close coordination of care between pulmonologist and oncologist crucial
- Diagnose and treat potential reversible etiologies of dyspnea
- Additive therapies for symptom management and supportive care extremely helpful

Questions?

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