Pathology Pointers
A supplement to Kirk Jones’ talk

Biopsy Adequacy

• Attempt to biopsy two to three lobes
  – Biopsy of superior and basilar segment of one lobe can count as two.
  – Lingula and right middle lobe often behave independently of the rest of the lung – but not always. Correlate with CT scan before surgery.

• Attempt to biopsy to a subpleural depth of 1.5 to 2 cm. Length is usually around 3-5 cm in these cases.
  – This allows for evaluation of the distribution of fibrosis within the pulmonary lobule
Diagnosis of UIP

• Temporal heterogeneity
  – Subpleural dense fibrosis with microscopic honeycombing
  – Fibroblast foci at interface between fibrotic and less-involved normal lung
  – Basilar distribution
Diagnosis of NSIP

• Diffuse alveolar septal thickening
  – Doesn’t have to be completely uniform, just distributed throughout the lobule relatively uniformly.
• Look for clues for more specific diagnosis
  – Poorly formed granulomas of HP
  – Lymphoid aggregates or pleuritis of CTD
Diagnosis of HP

• Lymphoplasmacytic interstitial inflammation with bronchiolocentric accentuation
  – May progress to fibrosis (often bronchiolocentric)

• Poorly formed granulomas
  – Interstitial aggregates of histiocytes with multinucleate giant cells, often with cholesterol clefts

• Foci of organizing pneumonia
Diagnosis of CTD-ILD

• Almost any pattern of disease
• Look for lymphoid aggregates with germinal centers
• Look for pleuritis
• Look for involvement of multiple zones of the lung (alveoli, airways, vessels, pleura)
• Prominent plasmacytic infiltration
• Overlapping pattern UIP/NSIP
  – Peripheral honeycombing, central “dusty cobweb”
Drug Reactions

• Almost any pattern
• Use [www.pneumotox.com](http://www.pneumotox.com)
  – Don’t get too carried away with case reports
  – Look for usual suspects
    • Amiodarone
    • Nitrofurantoin (stealth drug for UTI – BPH, post-coital)
Diseases with increased airspace macrophages

- Smoking-related lung diseases
  - Desquamative interstitial pneumonia
    - Diffuse alveolar filling by lightly pigmented macrophages
  - Respiratory bronchiolitis
    - Filling of peribronchiolar alveolar spaces by pigmented macrophages
- Eosinophilic pneumonia
  - Filling with macrophages, fibrin, and eosinophils
- Foamy macrophages
  - Any cause of organizing pneumonia
    - Amiodarone
    - Endogenous lipoid pneumonia
- Organizing alveolar hemorrhage