Chest Radiography Interpretation: Pulmonary TB

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Primary TB: Lung Parenchyma

- Distribution: Slight upper lobe predominance but any lobe can be involved
- Air-space consolidation
- Cavitation is uncommon (<10%)
- Miliary pattern
1° TB: Lobar Consolidation
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1° TB: Miliary TB
Primary TB: Hila & Mediastium

- Adenopathy is common, particularly in children and HIV infected
- Predilection for the right side
1° TB: Adenitis
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Primary Tuberculosis: Pleura

- Effusions common in adults
- Less common in children
- May be only finding in primary disease
1° TB: Pleural Effusion
Post-primary Tuberculosis
Lung Parenchyma

• Distribution
  - apical/posterior segments of upper lobes
  - superior segments of lower lobes
  - right side more common
  - isolated anterior segment involvement is unusual (think *M. avium* complex)
Post-primary TB
Post-primary Tuberculosis
Lung Parenchyma

- Patterns of disease
  - air space consolidation
  - cavitation, cavitary nodule
  - endobronchial spread
  - miliary
  - bronchostenosis
  - tuberculoma
Post-primary TB: Consolidation
Post-primary TB: Cavitation
Post-primary TB: Cavitary Nodule
Post – 1° TB: \( R_x \)
Post 1° TB: Endobronchial Spread of Infection
Post-primary TB: Miliary
Post-primary TB: Bronchostenosis
Post-primary TB: Bronchostenosis
Post-primary TB: Tuberculoma
Post-primary TB: Tuberculoma
Post-primary TB: Pleura

- Pleural effusions may occur in post-primary disease
- Empyema is more likely in post-primary disease
- Air / fluid level is evidence of a bronchopleural fistula
Post-primary TB
Post-primary TB: Broncho-pleural fistula
Chest Radiograph: TB and HIV

- Chest radiograph often shows primary disease pattern
- Adenopathy is common and highly predictive of tuberculosis
- Radiograph may be normal in up to 10% of cases
HIV & TB: Adenitis
The Chest Radiograph: Healed Tuberculosis

- Apical pleural thickening
- Calcified granuloma—Ghon lesion
- Calcified granuloma and hilar node calcification—Ranke complex
- Fibrosis and volume loss
Healed TB: Ghon Lesion
Healed TB: Ranke Complex
Healed TB: Apical Pleural Thickening
Healed TB:
Apical Pleural Thickening