

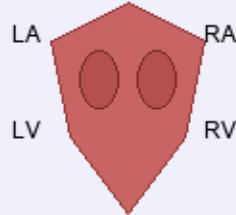


Cardiovascular Disease: Diagnosis and Treatment

Medical Grand Rounds
Department of Cardiology
Presented by: Dr. Smith

Cardiac Anatomy and Physiology

Human Heart Anatomy



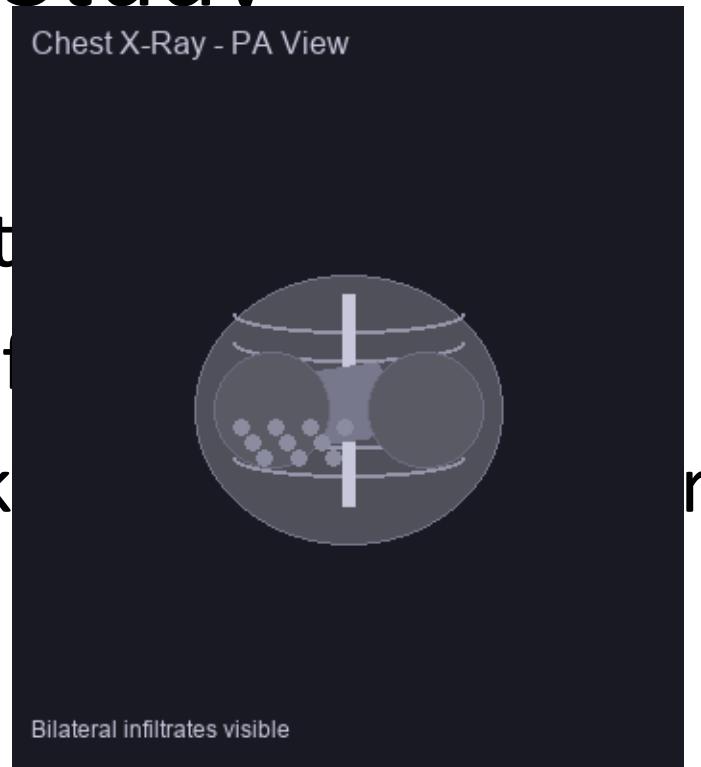
Key Cardiac Structures:

- Receives oxygenated blood
- Receives deoxygenated
- Pumps blood to systemic circulation

- Right Ventricle (RV) - Pumps blood to pulmonary circulation
- Valves regulate unidirectional blood flow

Chest Radiography: Pneumonia Case Study

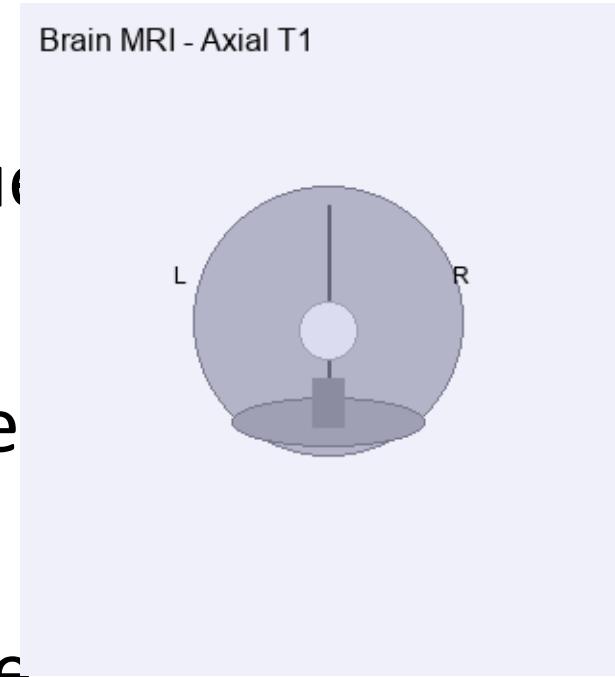
- Patient Presentation:
 - 65-year-old male with
 - Shortness of breath
 - Physical exam: Crackles in both lower lobes



- Radiographic Findings:
 - Bilateral lower lobe infiltrates
 - No pleural effusion

Neuroimaging: Brain MRI Interpretation

- MRI Technique:
 - T1-weighted axial sequence
 - 1.5 Tesla field strength
 - Contrast: Gadolinium-enhanced
- Normal Structures Visible.
 - Cerebral hemispheres
 - Lateral ventricles
 - Brainstem and cerebellum



Patient Monitoring: Vital Signs Trending

- 24-Hour Monitoring Results:

Heart Rate Monitoring



Treatment Protocol and Outcomes

- Evidence-Based Treatment:
 - Antibiotic therapy: Azithromycin 500mg daily
 - Supportive care: Oxygen therapy PRN
 - Monitoring: Serial chest X-rays
 - Duration: 7-day course
- Clinical Outcomes:
 - Fever resolution within 48 hours

