

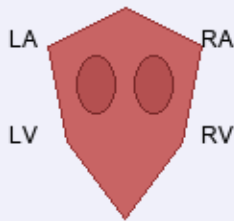


# Cardiovascular Disease: Diagnosis and Treatment

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

# Cardiac Anatomy and Physiology

Human Heart Anatomy



Structures:

Receives oxygenated blood

- Receives deoxygenated

- Pumps blood to systemic

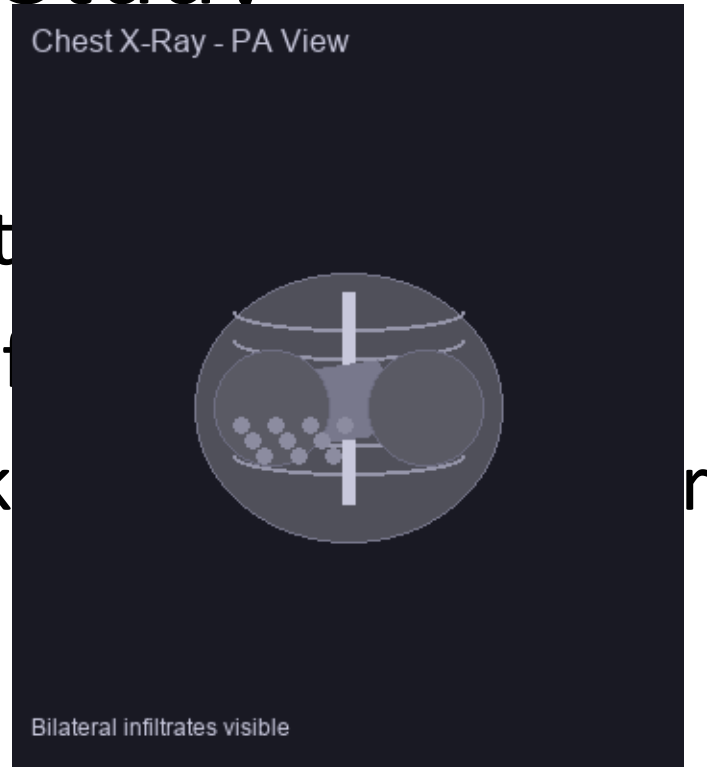
circulation

- • 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 lower lobes

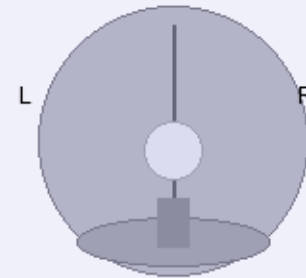


- Radiographic Findings:
- • Bilateral lower lobe infiltrates
- • No pleural effusion

# Neuroimaging: Brain MRI Interpretation

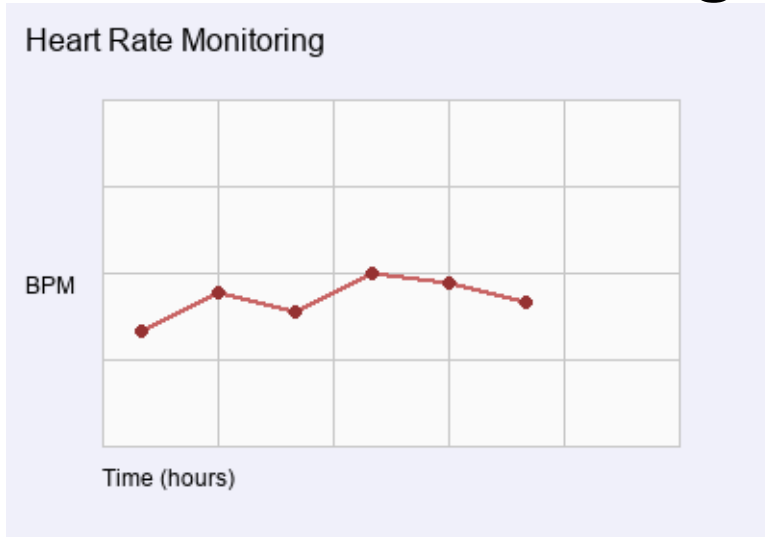
- MRI Technique:
  - T1-weighted axial sequence
  - 1.5 Tesla field strength
  - Contrast: Gadolinium-enhanced
- Normal Structures Visible:
  - Cerebral hemispheres
  - Lateral ventricles
  - Brainstem and cerebellum

Brain MRI - Axial T1



# Patient Monitoring: Vital Signs Trending

- 24-Hour Monitoring Results:



- monitoring

- assessment

- stable 120/80

- no fever

- • Oxygen saturation: 98% on room air

- Clinical Interpretation:

- • Improving hemodynamic status

# 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

