AMSER Case of the Month
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66-year old female status post cardiac surgery

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Patient Presentation

- 66-year old female status post cardiac surgery
- Preoperative diagnosis: left atrial myxoma
- Operative procedure:
  - Resection of left atrial myxoma via bilateral approach
  - Closure of atrial septal defect with bovine pericardial patch
- Transferred to the Surgical ICU in stable condition
Patient History

• Past medical history:
  • Atrial myxoma, acquired hypothyroidism, hyperglycemia, dyslipidemia, dyspnea on exertion

• Past surgical history:
  • Cardiac catheterization, thyroidectomy, joint replacement
STAT Chest Radiograph 3-4 hours Post Operatively
Findings of Post Operative Chest Radiograph

- Left hemithorax is completely opacified (yellow)
- Endotracheal tube (ETT) tip is located in the right main stem bronchus (orange)
- Right heart border (blue) and trachea are shifted to the left
Diagnosis

Complete atelectasis of the left lung secondary to right mainstem ETT intubation

Retract endotracheal tube 6 cm!
Post Retraction Chest Radiograph
Findings of Post Retraction Chest Radiograph

- Improved left upper lobe aeration (yellow) with persistent left lower lobe atelectasis
- Endotracheal tube tip is located at the level of the aortic arch (orange)
- Heart and trachea are still slightly displaced to the left (blue)
Discussion

• Atelectasis of the entire lung
  • Resulting from complete obstruction of the left main bronchus
  • Loss of air volume in the left lung causing collapse of the alveoli
  • Shift of the heart and trachea toward the side of the atelectasis
Discussion

• Correct placement of endotracheal tube
  • The tip should be 3-5cm above the carina
  • Landmark for the ideal position for the ETT is mid trachea, halfway between the larynx and carina—between the clavicular heads
  • Neck flexion and extension can cause 2cm of descent and ascent of the tip, respectively.
  • The tip should be advanced at least 3 cm distal to the level of the vocal cords

• Clinical examination
  • Auscultate the lungs bilaterally to ensure air movement with inhalation and exhalation
Reference