

A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide, partially overlapping the text.

32M AMS, SOB

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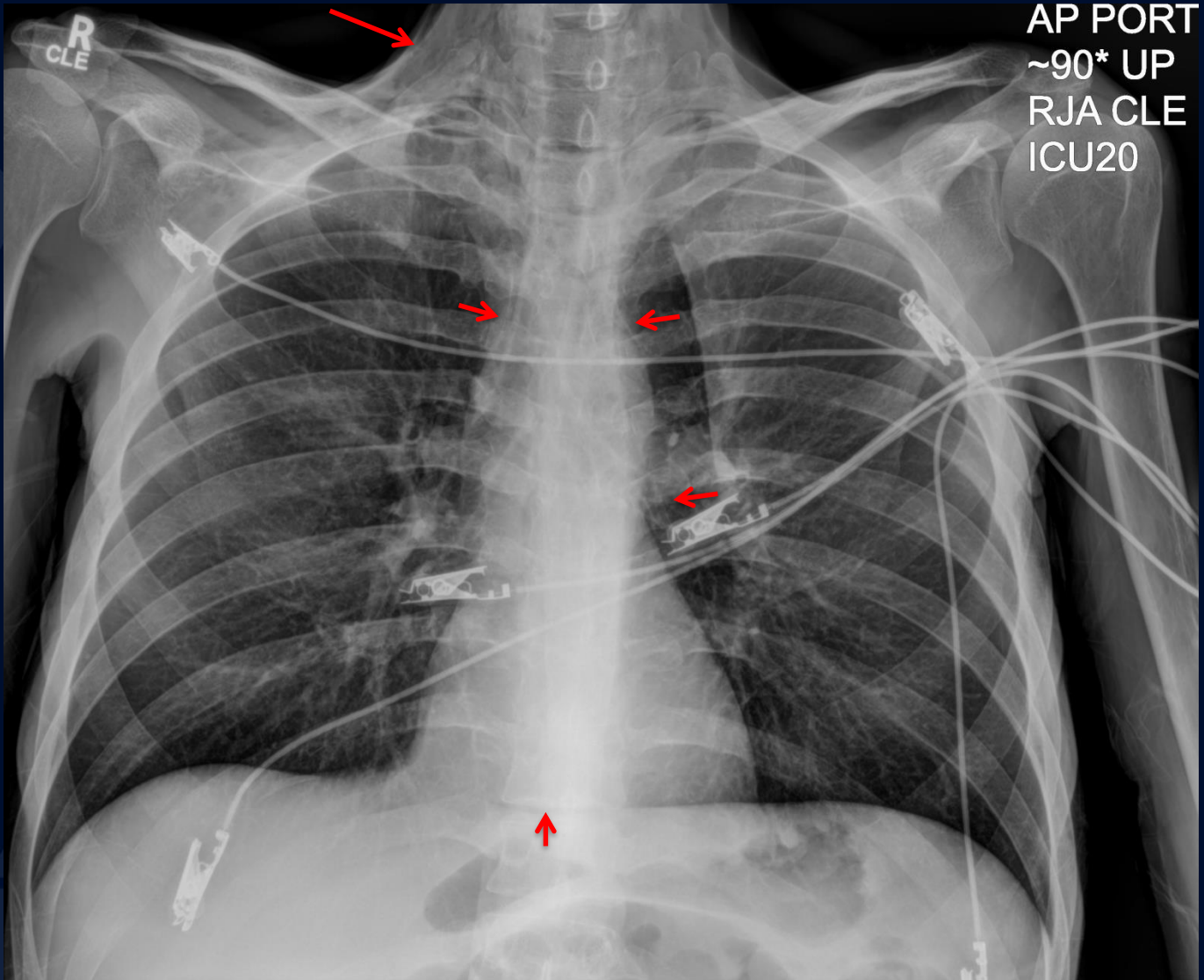
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Pneumomediastinum

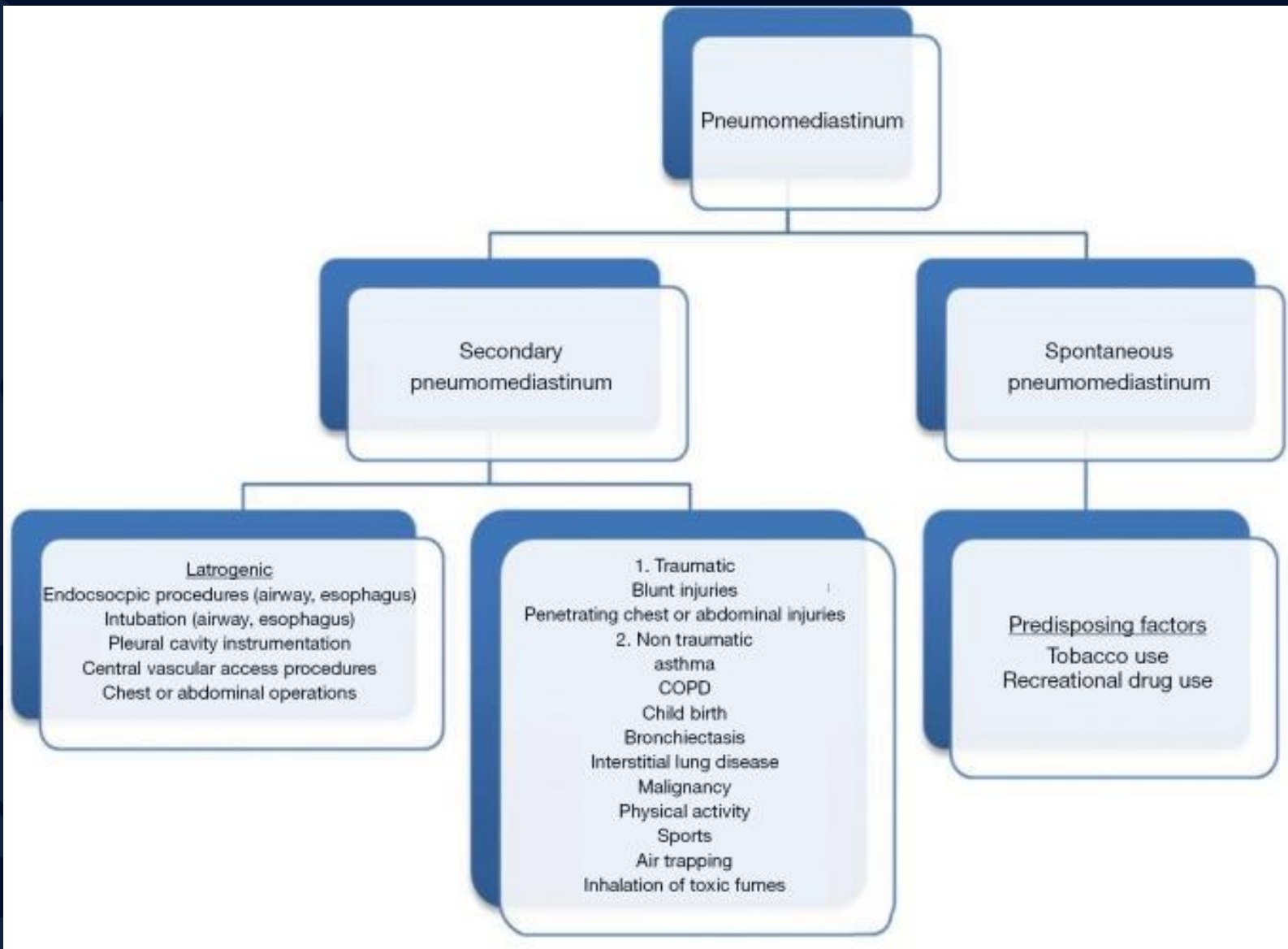


Radiographic findings on CXR

- Air ant/post to heart
- Air surrounds/outlines mediastinal structures
- Air dissects superiorly into neck SQ tissue and inferiorly into retroperitoneum
- Lateral view more sensitive than frontal radiograph (and CT more sensitive than radiography).
- Decubitus radiography – air does NOT shift to nondependent positions

Signs of Pneumomediastinum

- SubQ air in neck/chest wall (70% will have this)
- Interstitial air - double bronchial wall - air on both sides of airway wall.
- Ring around artery sign – air surrounding artery/vein seen en face
- Tubular artery sign – air surrounding vessels along its length
- Continuous diaphragm sign – air outlining inferior aspect of heart above diaphragm
- Naclerio V sign – paravertebral air adjacent to left hemidiaphragm and descending aorta (suspicious for esophageal tear).
- “Spinnaker Sail sign” - elevation of thymic lobes in peds



Presentation

- Chest and/or neck pain(50-90%)
- Cough and/or dyspnea
- SubQ air – palpable crepitus
- Dysphagia
- Rhinolalia
- Hoarseness/neck swelling
- Hamman Sign –”crunching” sound timed with the cardiac cycle, diminished heart sounds
- Decreased cardiac output possible in tension pneumomediastinum/pneumopericardium.

- **Demographics:**
 - Rare: ER 1/44,500; natural birth 1/100,000
 - peak incidence 20-40yo
 - Male>female
- **Course:**
 - Benign course usually resolves in 7 days (4-41 days)
 - Typically the case. Clinical hx needed to exclude occult condition.
 - Mortality >50% in Boerhaave syndrome
- **Next step in management:**
 - Spontaneous – observe for tension ptx
 - If esophageal or airway injury suspected – esophagram/bronchoscopy

References

- Statdx
- Radiopaedia
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332083>
- <http://casereports.bmj.com/content/2014/bcr-2014-203704.abstract>
- <https://www.hindawi.com/journals/criem/2015/134816/>