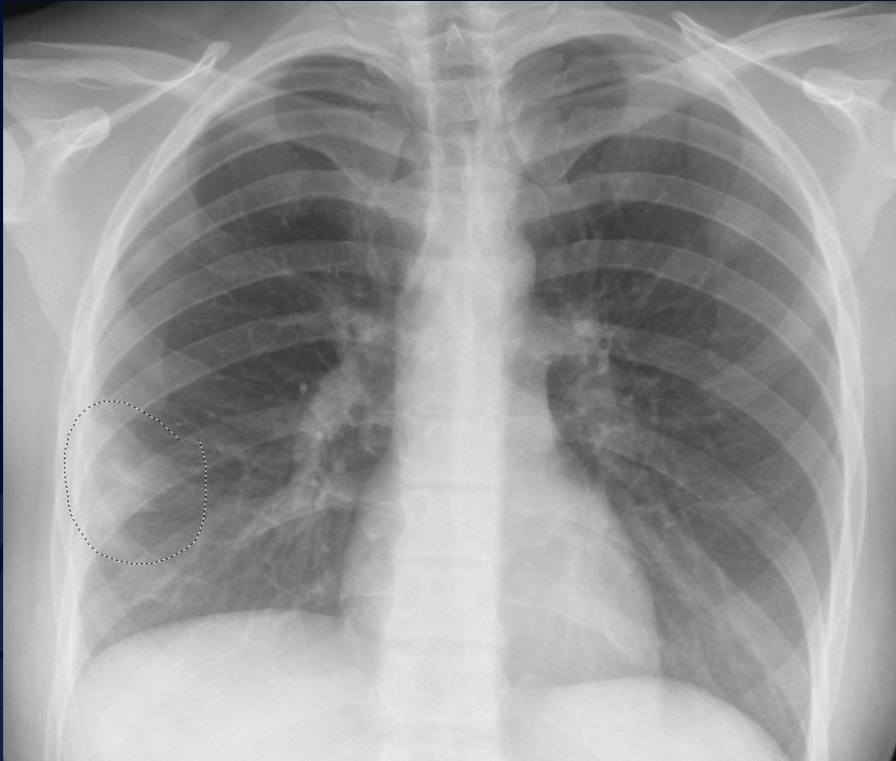


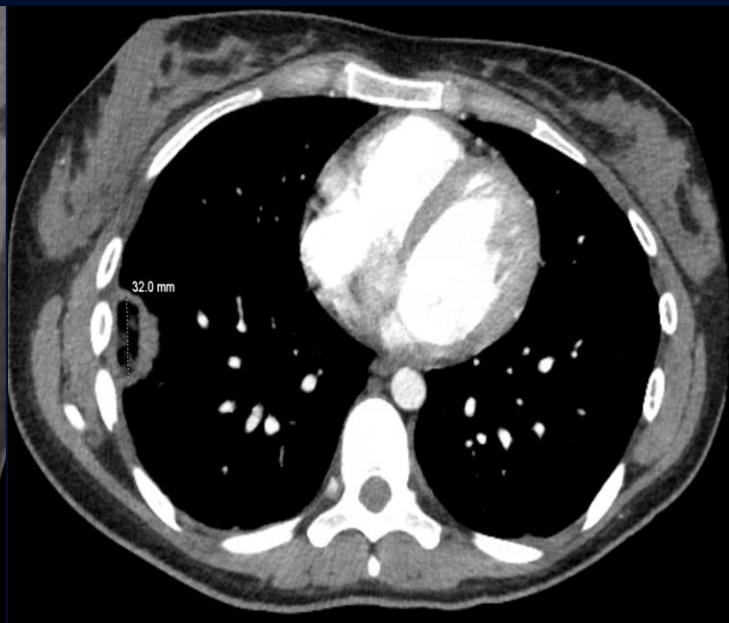
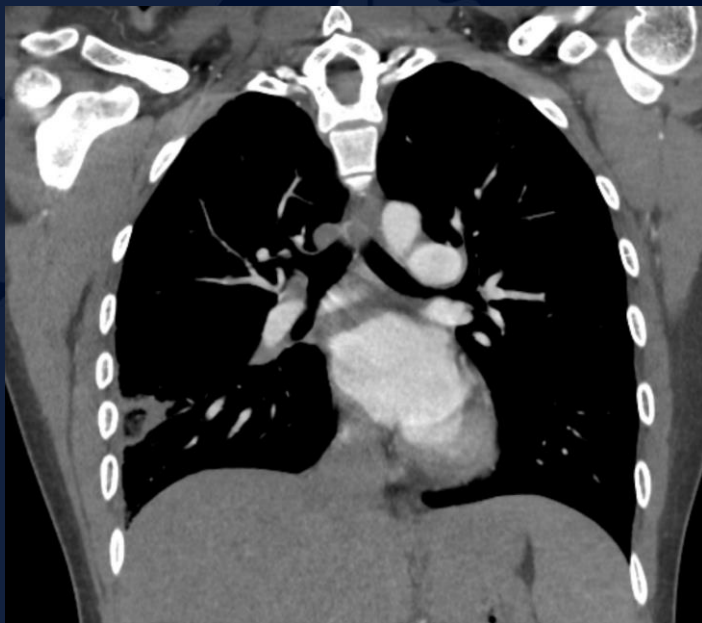
20-year-old female s/p mitral valve replacement presenting with 10-day history of fever, sore throat, and pleuritic chest pain

Nehal Navali, MS3

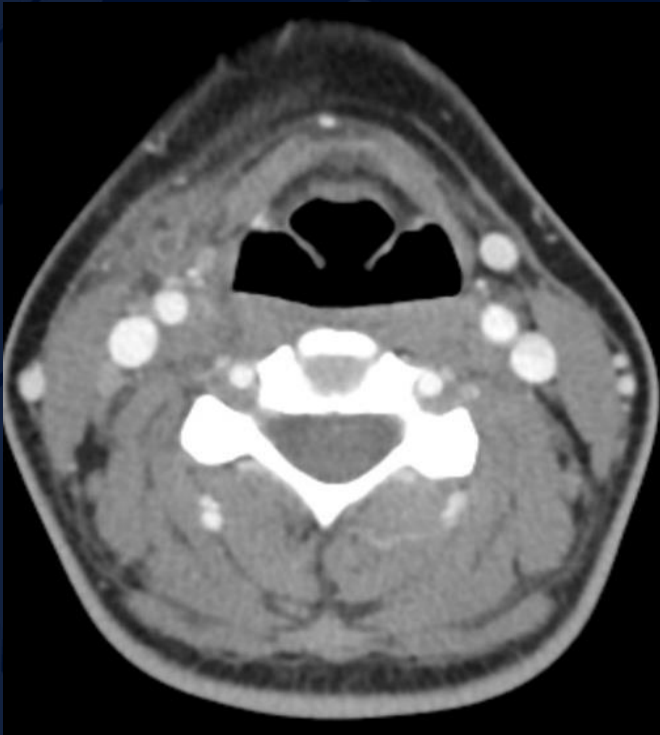
# Radiograph



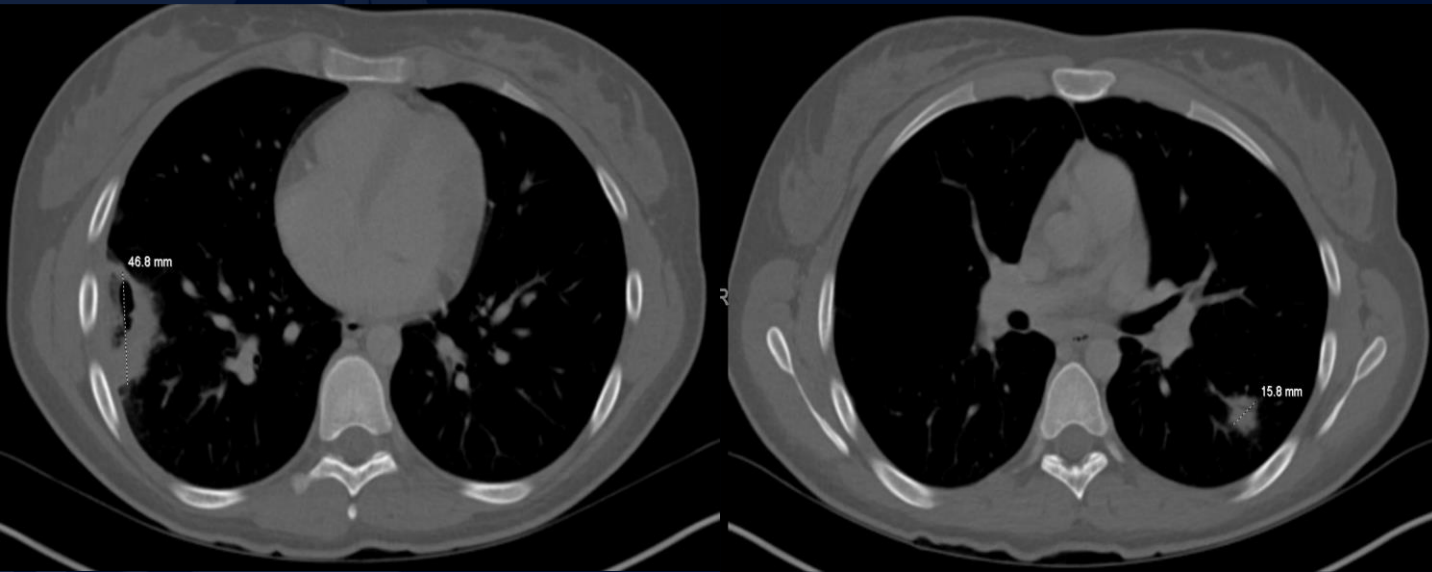
# CT IV Contrast



# CT IV Contrast



# Follow-up CT (3 days later)



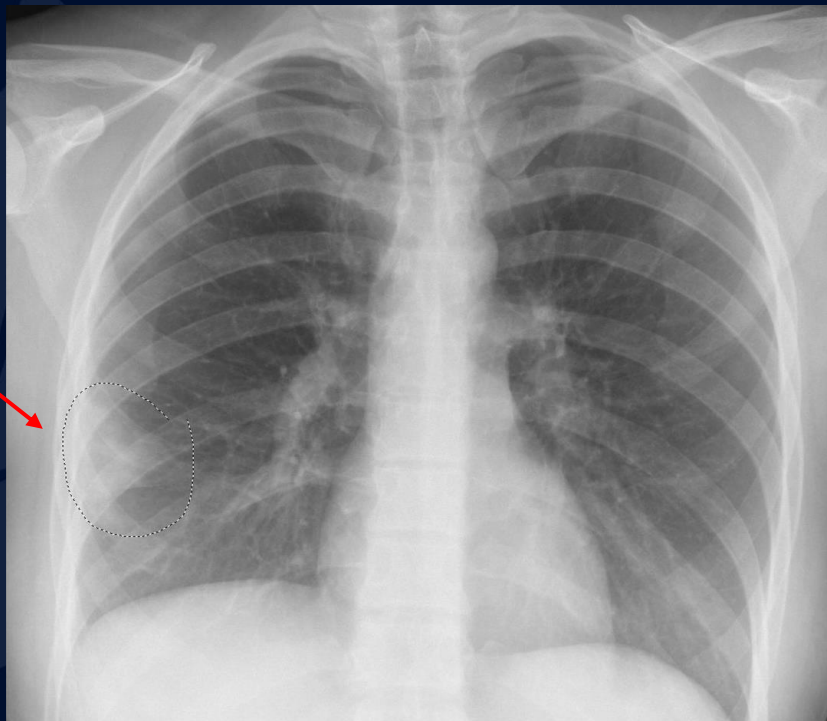
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide.

?

# Lemierre Syndrome

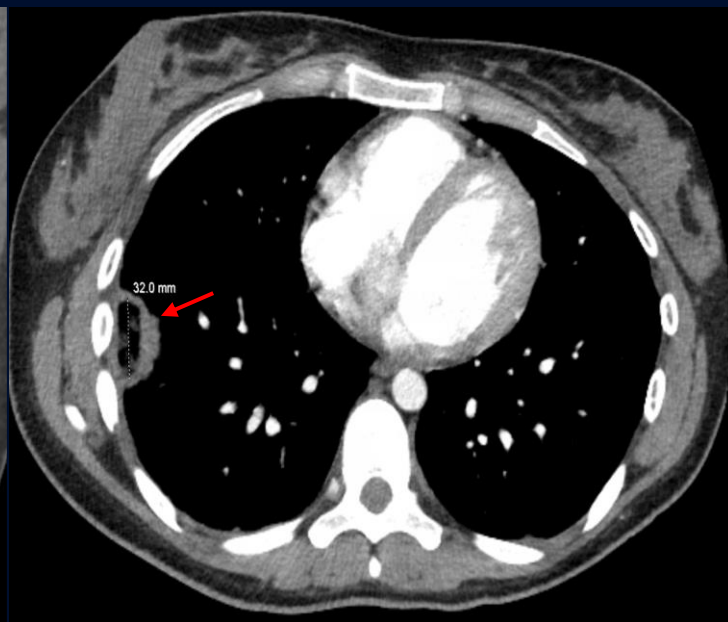
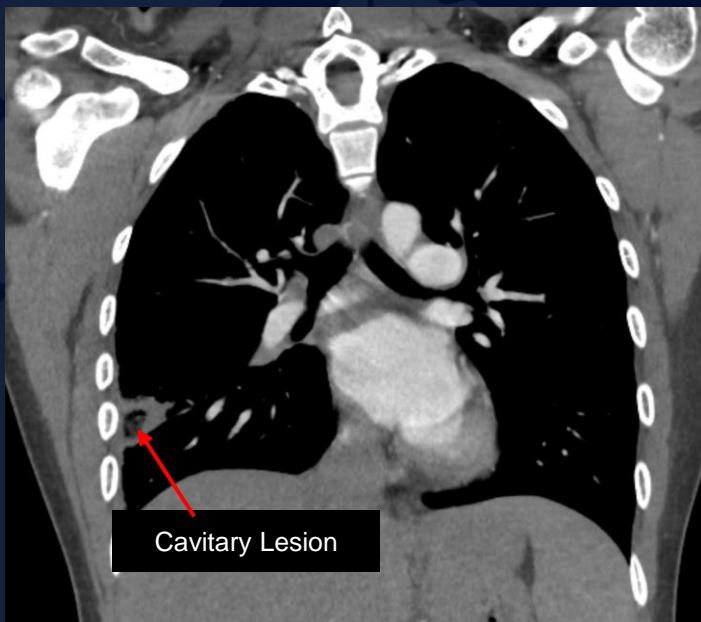
# Radiograph

Right lower lobe  
airspace opacity



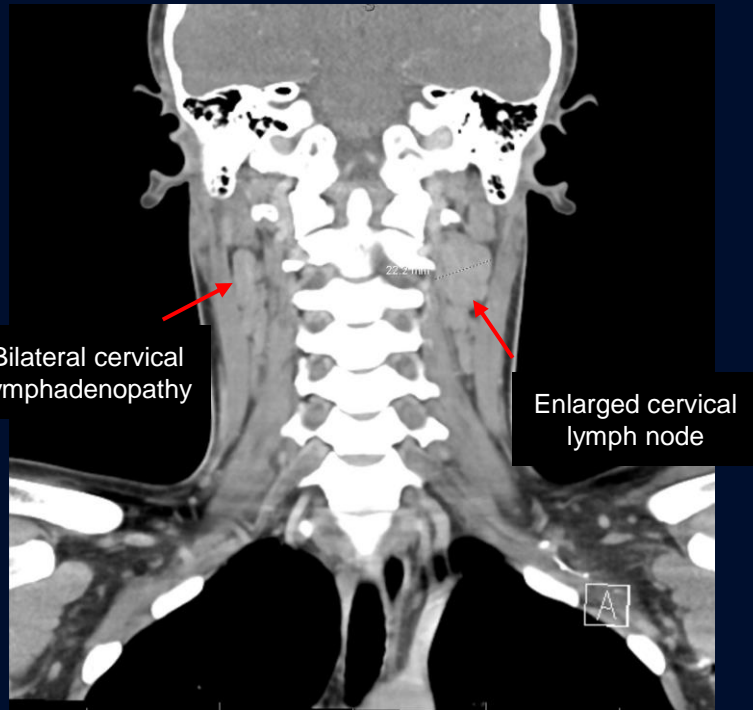
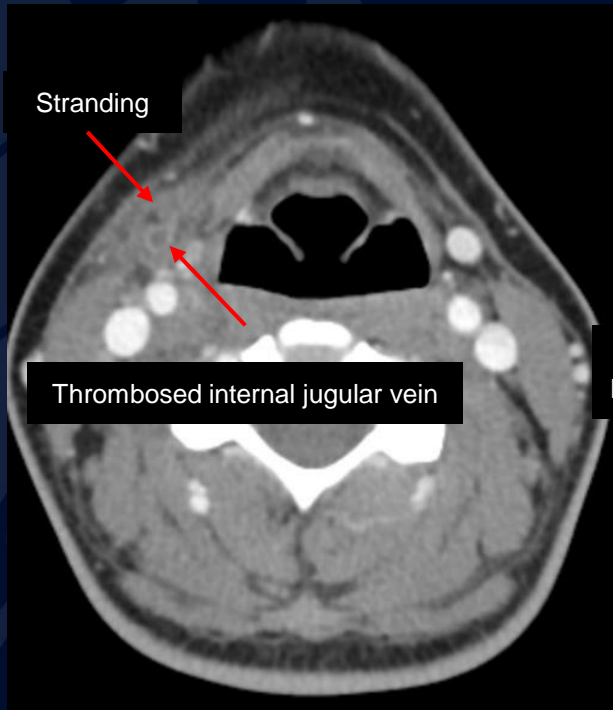


# CT IV Contrast



Septic emboli

# CT IV Contrast



# Follow-up CT (3 days later)



Septic emboli

# Lemierre Syndrome

Lemierre's Syndrome refers to thrombophlebitis of the internal jugular veins with distant metastatic anaerobic septicemia in the setting of initial bacterial oropharyngeal infection such as pharyngitis/tonsillitis into the lateral pharyngeal spaces of the neck. Most often caused by *Fusobacterium necrophorum*.

- Presentation
  - Develops 4-5 days after an episode of acute pharyngitis
  - Trismus, pain, neck swelling
  - Chest pain and dyspnea (pulmonary septic emboli)
  - Joint pain, swelling, redness (septic joint)
  - Encephalopathy (intracranial involvement)

## Differential diagnosis

- Right-sided endocarditis
- Cervical Lymphadenitis
- Malignancy
- Organizing Pneumonia

## Treatment

- Antibiotics
- Anticoagulation- Limited data on efficacy and not typically used
- Drainage or debridement

# Imaging Findings

## Ultrasound

- Fast screening for venous thrombosis

## CT

- Tonsil fullness, edema, less commonly abscess
- Ipsilateral vein thrombosis, usually internal jugular but other small tributaries may be involved
- Inflammatory changes in the neck
- Metastatic seeding
  - Pulmonary nodules (80%); pulmonary septic emboli classically cavitate
  - Septic joint (15%)

## MRI

- Evaluate for intracranial and orbital complications such as meningitis, abscess, cavernous sinus thrombosis
- Consider MRV for cerebral vein thrombosis

# References

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Lee WS, Jean SS, Chen FL, Hsieh SM, Hsueh PR. Lemierre's syndrome: A forgotten and re-emerging infection. *Journal of Microbiology, Immunology and Infection.* 2020;53(4):513-517. doi:<https://doi.org/10.1016/j.jmii.2020.03.027>

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<https://radiopaedia.org/articles/lemierre-syndrome?lang=us>