



PEDIATRIC DIAGNOSTIC IMAGING: RETROPHARYNGEAL ABSCESS

Katherine Farnsworth, PA-SIII

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Radiology Elective Rotation

HISTORY

- KE is a 14 m.o. female presenting with:
 - Fever
 - Inability to sleep
 - Decreased PO intake
 - One wet diaper overnight, and has not had another wet diaper since mom changed her at 9am this morning
 - Drooling a lot
 - Decreased activity
 - No known sick contacts, not in daycare

PHYSICAL EXAM

- Febrile to 101.8
- HR 121
- RR 28
- SpO2 98%
- Tired, arousable
- Drooling
- Cervical lymphadenopathy R>L
- Right-sided cervical edema, w/out discharge
- Upper transmitted airway sounds



DIAGNOSTIC IMAGING FINDINGS

#1 LATERAL NECK RADIOGRAPH



FINDINGS/IMPRESSION:

THE PREVERTEBRAL SPACE APPEARS ENLARGED. THIS MAY BE ARTIFACTUAL SECONDARY TO THE PATIENT'S POSITIONING, VERSUS REPRESENT A RETROPHARYNGEAL ABSCESS. A REPEAT LATERAL NECK RADIOGRAPH WITH THE NECK IN EXTENSION MIGHT HELP IN THE DIFFERENTIAL.

#2 LATERAL NECK RADIOGRAPH

FINDINGS:

THERE IS SWELLING OF PREVERTEBRAL SOFT TISSUES CAUSING ANTERIOR AND RIGHT-WARD MASS EFFECT ON THE TRACHEA. THERE IS NO LISTHESIS OR FRACTURE IDENTIFIED. EPIGLOTTIS AND ARYEPIGLOTTIC FOLDS APPEAR NORMAL.

IMPRESSION:

FINDINGS RAISING CONCERN FOR RETROPHARYNGEAL ABSCESS WITH TRACHEAL DEVIATION.



#3 CT SOFT TISSUE NECK

- Findings

- There is a 2.3 x 1.5 x 2.5 cm rim-enhancing retropharyngeal abscess (image 19 of series 3) with large amount of retropharyngeal effusion visualized throughout the soft tissues of the neck. The retropharyngeal abscess displaces the right internal carotid artery posterolaterally. The trachea is displaced anteriorly and to the right.
- Prominent adenopathy is also visualized within the neck, such as a 1 cm lymph node adjacent to the peritonsillar abscess on image 16 of series 3.

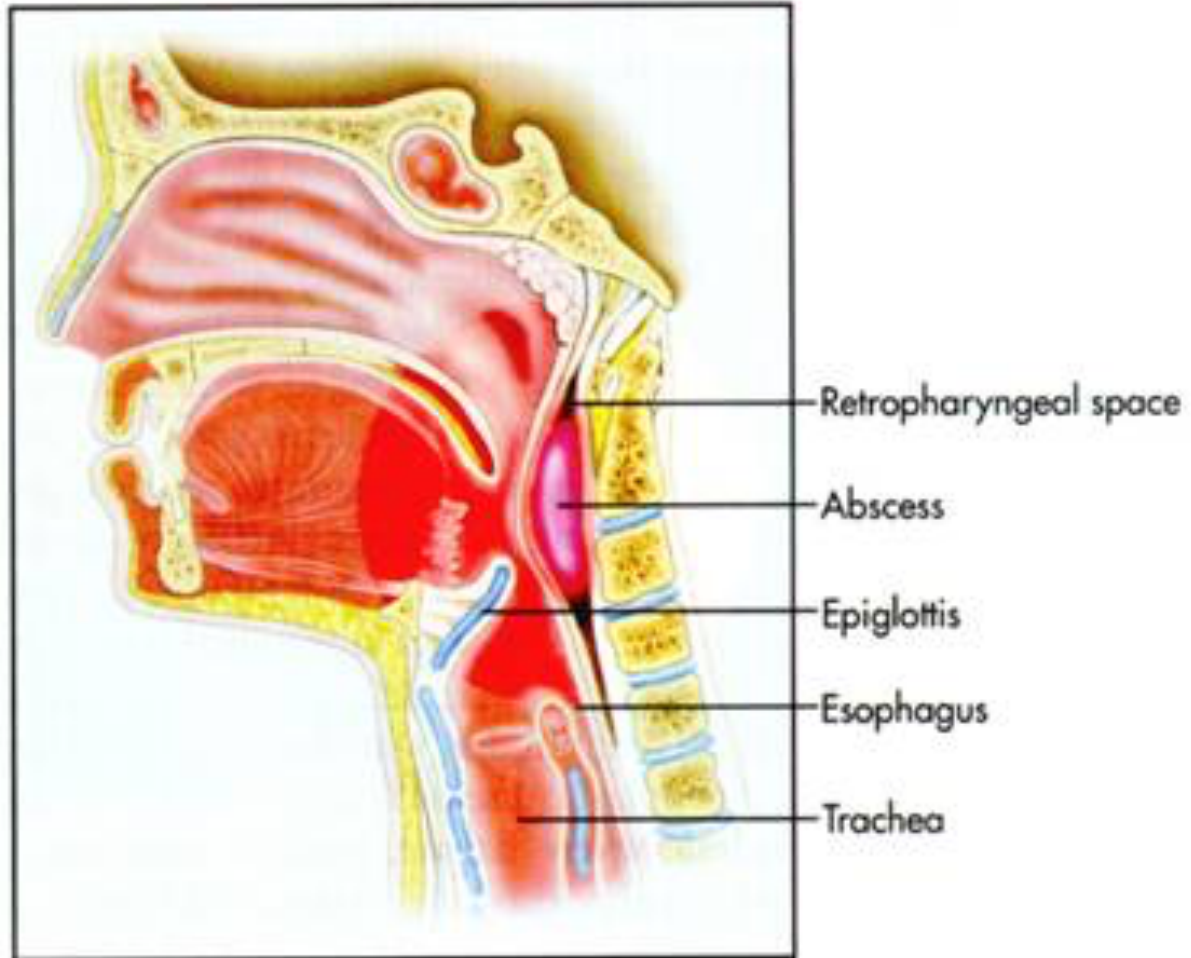
- Impression

- Findings consistent with a right peritonsillar abscess with a retropharyngeal effusion. Prominent, likely reactive adenopathy. Mild narrowing and displacement of the trachea.

DIFFERENTIAL DIAGNOSIS

- Retropharyngeal cellulitis
- Peritonsillar abscess
- Prevertebral abscess
- Retropharyngeal hematoma
- Mass (hemangioma, tumor)
- Retropharyngeal pseudothickening

RETROPHARYNGEAL ABSCESS



- 2-4 years old
- 50% due to URI
- 25% due to trauma
- Polymicrobial infections

CLINICAL PRESENTATION

- Fever, sore throat
- Limitation of cervical motion
- Difficulty with neck extension
- “hot potato voice”
- Drooling
- Neck swelling
- Cervical lymphadenopathy



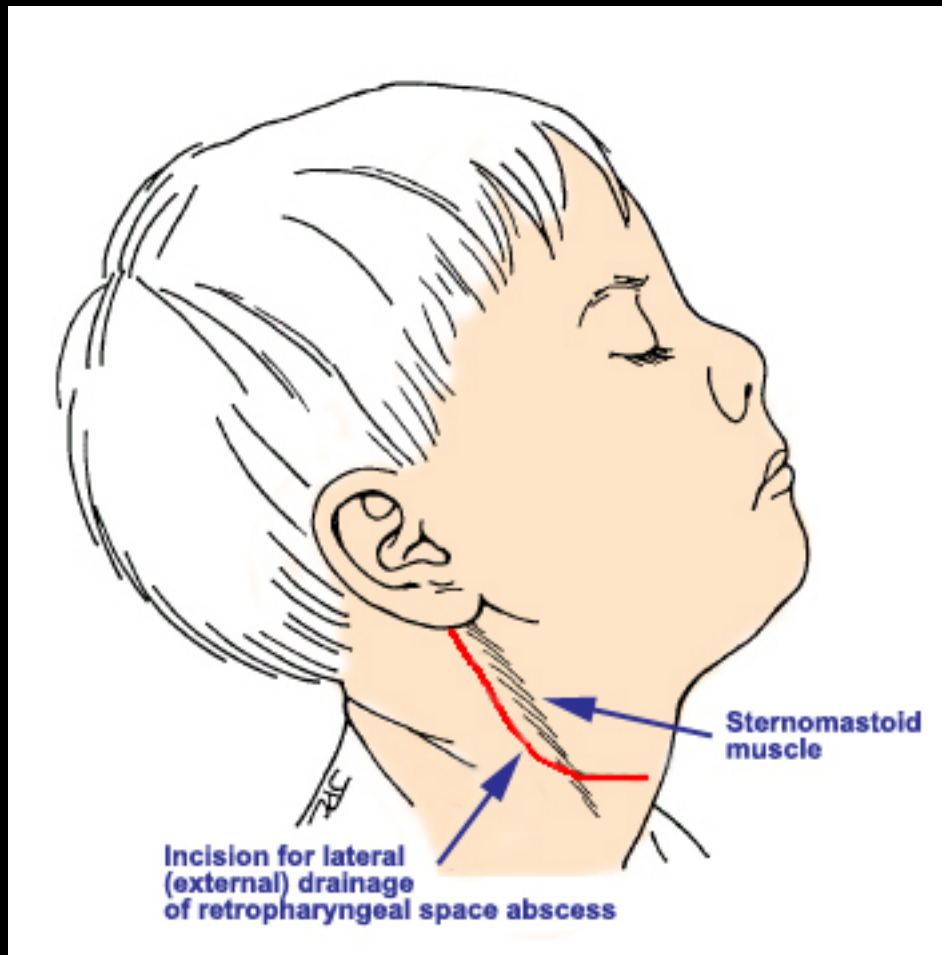
- Airway compromise
- Sepsis
- Extension to contiguous structures

IMAGING

- Chest radiograph
 - Increased prevertebral space
- CT w/ IV contrast
 - Diagnostic test of choice
 - useful to distinguish RPA vs. retropharyngeal cellulitis

MANAGEMENT

- Conservative management during first 48hrs
- If clinically improving → antibiotics alone
- If clinically deteriorating → surgical drainage



REFERENCES

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