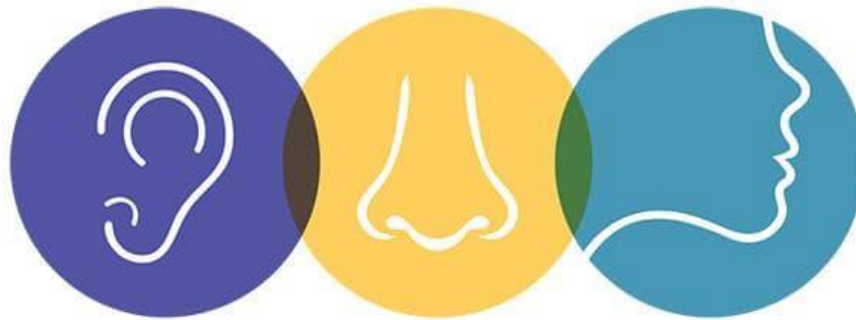


Case 2:



EDINBURGH UNIVERSITY
EAR NOSE & THROAT
SOCIETY

The Edinburgh ENT Soc cases have not been proofread by any professionals or members of the medical school. They have been made based on the guidelines available at the time.

For questions and feedback please email us at edinburghentsoc@gmail.com or use our social media pages (@EUENTSOC on instagram, @EdinburghENTSoc on Facebook).



An 18-month boy presents to the ENT department with 30 days of fever and swelling on the right side of the neck. On examination, there is a tender, fluctuant pus containing swelling present on the right side of the neck. Throat examination is normal.

Question 1: What is the list of differential diagnosis?



Parapharyngeal abscess is the most likely diagnosis due to the fever and the examination revealing a unilateral tender, fluid filled cavity. It is the 2nd most common type of neck abscess after peritonsillar abscesses.

However, it is very important to exclude malignancy. Lymphoma, neuroblastoma, sarcoma and thyroid tumours can also present with a neck lump.

Glandular fever would show bilateral lymphadenopathy and peritonsillar abscess would present with swelling and redness on throat examination.

Question 2: A blood test shows isolated leucocytosis. What other investigations will you order to confirm the diagnosis?



A **CT scan** would confirm the parapharyngeal abscess.

An **ultrasound scan** would help in determining the cavity's depth and the presence of any blood vessels in that cavity.

A **needle biopsy** may be undertaken if there is a high suspicion of malignancy.

Question 3: The CT scan confirms a large parapharyngeal abscess. What are the treatment options for this child?



Broad spectrum antibiotics and **surgical drainage** (cervical incision or submaxillary fossa approach or intra-oral drainage) form the basis of abscesses management.

A bacterial swab would be undertaken during the procedure.

Steroids are often given for 5-7 days to reduce pain and swelling.

Only small abscesses can be treated with antibiotics alone.

Question 4: What complications are associated with parapharyngeal abscesses?



Lemierre Syndrome is a possible complication of parapharyngeal abscesses. It is characterised by thrombophlebitis of the jugular vein with septicaemia.

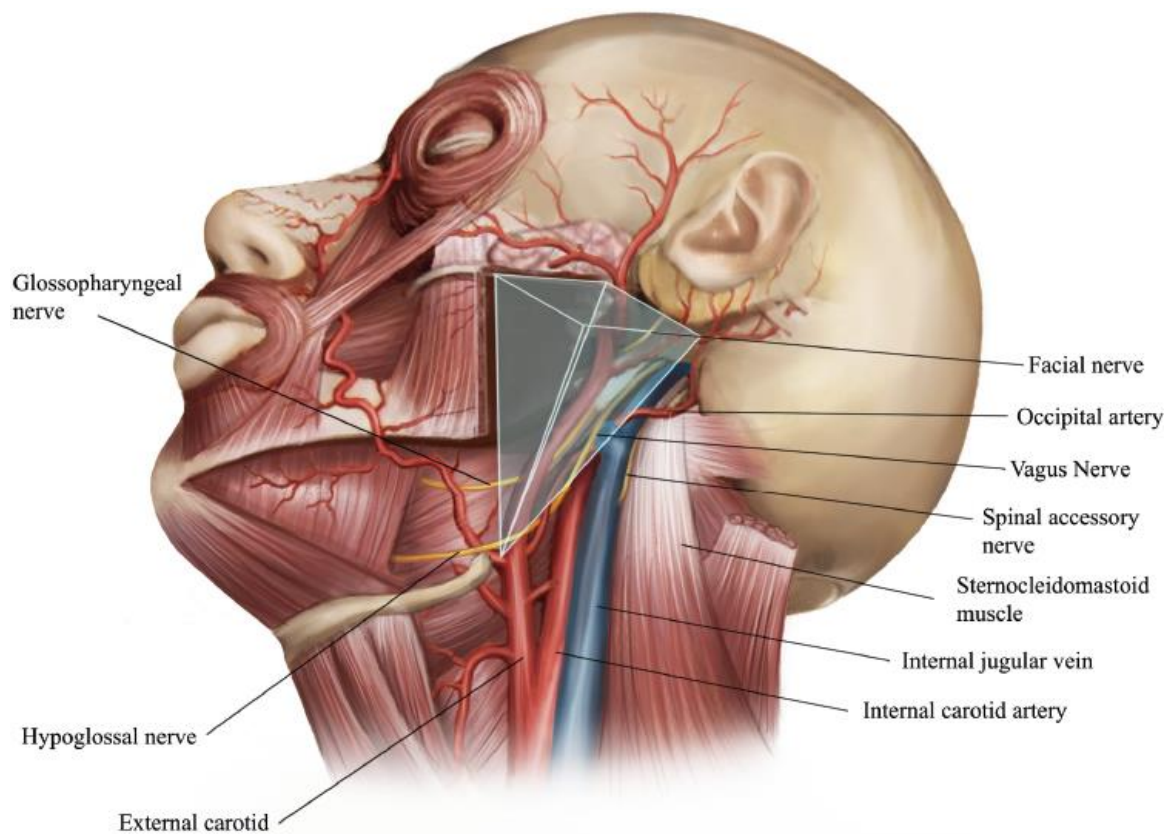
Other complications (non-exhaustive list) include acute oedema of the larynx with airway obstruction and spread of the infection to the retropharyngeal space or mediastinum along the carotid space or danger space.

Pneumonia is more associated with retropharyngeal abscesses than parapharyngeal abscesses.

Additional information:

Parapharyngeal space boundaries:

It is an inverted cone-shaped potential space that extends from the hyoid bone to the base of the skull. Medially, it is bound by the pretracheal fascia, and laterally, by the pterygoid muscles and mandible. Anteriorly, it is bound by the submandibular space, and posteriorly, by the retropharyngeal space



References:

Parapharyngeal space boundaries diagram reproduced from: <https://entokey.com/3-parapharyngeal-space-anatomy-and-dissection/>

<https://www.youtube.com/watch?v=qObcsrpb4og>

<https://radiopaedia.org/articles/parapharyngeal-abscess#:~:text=When%20a%20parapharyngeal%20abscess%20is,with%20IV%20antibiotics%20alone%201.>

<https://radiopaedia.org/articles/parapharyngeal-space>

<https://pubmed.ncbi.nlm.nih.gov/18004583/>

