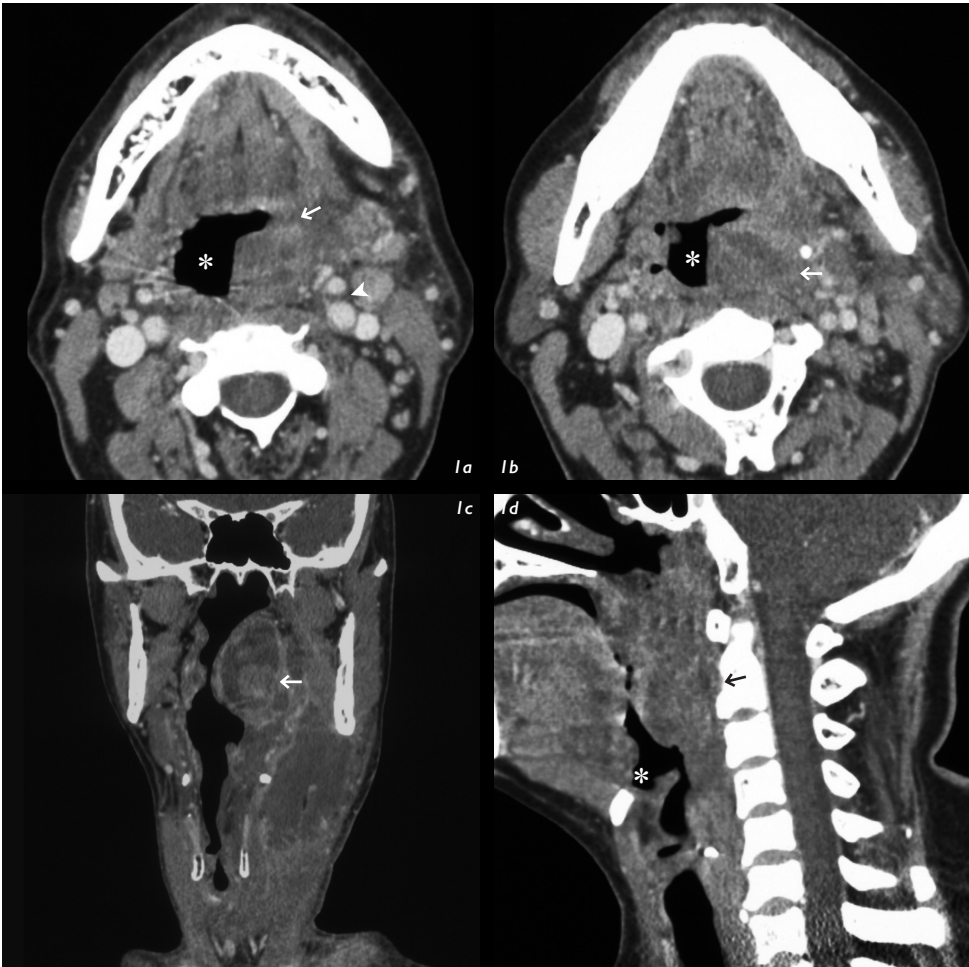


Chapter 1

A 30-year-old gentleman presented to the emergency department with 3 days history of fever and sore throat. Physical examination showed enlarged left tonsil with exudate. An urgent CECT of the neck was performed to rule out peritonsillar abscess (Figs 1a-d)

What are the imaging findings and diagnosis?



Findings:

- Axial (Figs 1a, b), coronal (c) & sagittal (d) CECT show enlarged left tonsil (→) with multiple small round hypodense areas with rim enhancement. The oropharyngeal airway (*) is mildly narrowed. Note the relationship of the abscess to the carotid sheath (▲).

Diagnosis: Acute tonsillitis with peritonsillar abscess

1 Neck Abscess

Introduction

- Neck abscess is an acute condition and can be classified according to etiology and location.
- Common etiologies include foreign body ingestion / impaction, acute tonsillitis, dental caries and iatrogenic (eg. postoperative).
- Common locations include **tonsil** (Figs 1a-e), **submandibular** and **masticator spaces**. There may be extension down the **oro- / hypopharynx** and mediastinum (Figs 1f ,g).



Fig 1 e Coronal CECT neck in a drug abuser shows enlarged left tonsil (→) and large neck abscess (▲), seen as multiple hypodense rim enhancing areas extending inferiorly to the left submandibular space and lower neck.

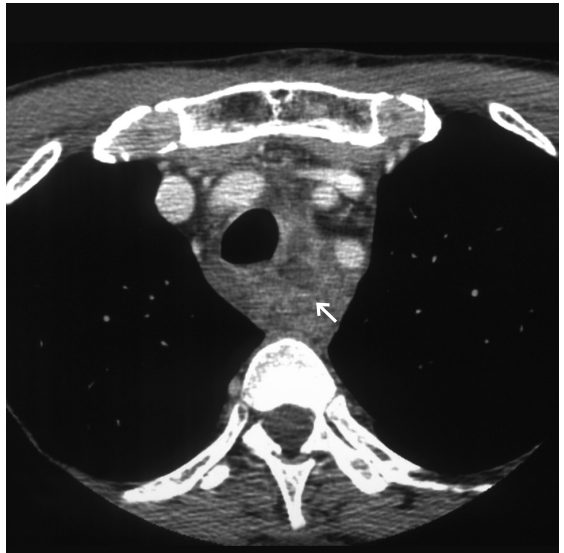


Fig 1 f Axial CECT thorax (same patient as above) shows a small hypodense abscess collection in the superior mediastinum (→).



Tonsillar Abscess



Submandibular Abscess



Oro-/hypopharyngeal Abscess

Neck Abscess 1



Fig 1 g Axial CECT shows large rim enhancing abscess (→) at the left oropharynx, causing significant narrowing of the airway (*).

- Symptoms depend on location of the abscess and can include sore throat, dysphagia, trismus. Systemic symptoms such as fever and chills are usually present.
- CECT is the preferred imaging modality, particularly in evaluating the deep extent and any inferior extension into the mediastinum. Typical features include a hypodense lesion with rim enhancement. Extension to the retropharyngeal space or mediastinum should also be looked for.
- Although MRI is an alternative imaging modality, its limited availability and longer duration of scan makes it less applicable in acute clinical abnormalities in the neck.



Sterno-cleidomastoid Muscle Abscess



Masticator Space Abscess

1 Neck Abscess

PEARLS:

- Common locations of neck abscess include tonsil, submandibular and masticator spaces. There may be extension to the mediastinum, parapharyngeal and retropharyngeal spaces.
- CECT is the imaging modality of choice. It is readily available, fast and provides excellent anatomical details of local and regional extent.