Vallecular Abscess in a Patient with History of Hidradenitis Suppurativa

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Introduction

- Vallecular abscess: a supraglottic cyst near the tongue base.
- Etiology:
  - Due to dilated ducts from vallecula's ductal cell composition.
  - Possible embryological malformation.
- Characteristics:
  - Uniocular cysts with clear, non-infected serous fluid.
  - Represent 10.5-20.1% of all laryngeal cysts.
- Clinical Presentation:
  - Can be asymptomatic or symptomatic.
  - Large abscesses may cause airway obstruction and feeding difficulties.
- Treatment:
  - Surgical debulking, cyst aspiration, or laser excision.
- Notable Observations:
  - Vallecular cysts often undetected before anesthesia induction.
  - Dysphagia is rarely due to a vallecular abscess.
  - Vallecula cysts are rare and underreported.
- Case Highlight:
  - Vallecula cyst in a patient with hidradenitis suppurativa causing acute airway and feeding issues.

Methods

Case Report and Literature Review.

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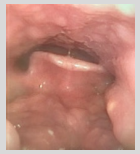
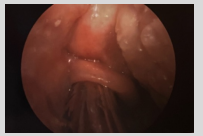
Case Presentation

- Patient Profile:
  - 30-year-old female.
  - Medical History: Obesity, diabetes, hidradenitis suppurativa.
  - Symptoms for 4-5 days: Breathing difficulty, hoarseness, cough, reduced appetite, ear pain, dysphagia.
  - Prior evaluations: Deemed viral by primary care and urgent care.
- Initial Assessment:
  - Physical Exam: Muffled voice, neck edema, submandibular and submental tenderness.
  - Lab: Elevated WBC count (12.65 K/uL).
  - CT Scan: 2.2 x 2.3 cm fluid collection near the tongue base, above the epiglottis.
- Treatment:
  - Admission for observation, started IV clindamycin (600mg TID) & IV Levaquin (750 mg daily).
  - No significant improvement in 2 days despite antibiotics.
- Surgical Evaluation:
  - Aim: Differentiate vallecular abscess from thyroglossal duct cyst.
  - Procedure: Direct laryngoscopy, using Dedo-Pilling Laryngoscope.
  - Findings: Vallecular abscess visualized, drained with 18-gauge needle. Purulence sent to pathology.
  - Post-drainage: Local bleeding controlled.
- Post-Op:
  - IV antibiotics continued for 2 days.
  - Patient healing effectively.
  - Normal voice and unimpaired swallowing.
  - Neck free from new anomalies.
  - Micro review: No growth.
  - Absent fever or chills.
  - Discharge: Oral Augmentin 875 mg for 5 days.
  - Outcome: No recurrence of vallecular abscess.

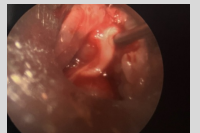
Post-Op Scope:



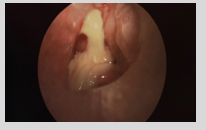
➢ Figure 1. Imaging of vallecular abscess between base of tongue and epiglottis.



➢ Figure 2. Imaging of 18-gauge needle dissecting out vallecular abscess.

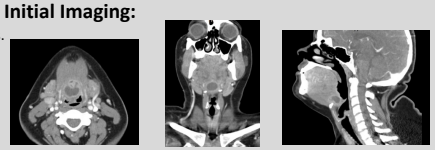


➢ Figure 3. Imaging of purulent discharge of vallecular abscess during surgical removal after use of 18-gauge needle.

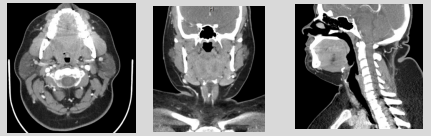


➢ Figure 4. Imaging of cauterized remnant of vallecula after removal of the abscess.

Initial Imaging:



Follow-up Imaging:



Results

- Patient Symptoms:
  - Respiratory distress, dysphagia, odynophagia, hoarseness, cough, poor appetite, otalgia.
- Differential Diagnosis:
  - Includes thyroglossal duct cyst, peritonsillar/parapharyngeal abscess, laryngocele, thyroid goiter.
- Imaging:
  - Narrowed diagnosis to abscess near tongue base or thyroglossal duct cyst.
- Context:
  - Thyroglossal duct cysts: common in adults.
  - Oropharyngeal abscess: higher likelihood due to patient's hidradenitis suppurativa history.
- Note:
  - Vallecular cysts in adults are rare, especially those causing respiratory obstruction.
  - Exact prevalence and incidence unclear.
- Key Takeaways:
  - This case aids in distinguishing diseases leading to similar neck masses.
  - Treatment insights:
    - Assess symptoms.
  - Review medical history.
    - Trial with antibiotics.
    - Surgical intervention as required.

Conclusions

Vallecular abscess is a rare diagnosis on the long list of possible differentials for an enlarging neck mass. Patients with hidradenitis suppurative may be more likely to develop an abscess in this location than the general public. Knowledge of disease differentiation, diagnostic imaging, and medical and surgical intervention are essential for evaluation and treatment. Large vallecular abscesses can lead to dysphagia and airway obstruction and may require surgical intervention for removal.