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Case Report: How a Vallecular Cyst Could Have Become an Airway Emergency

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Introduction

Vallecular cysts, also known as epiglottic mucous retention cysts are known to be generally self limiting laryngeal lesion. They can however also be associated with airway obstruction, and dysphagia in infants. In adults, they are usually asymptomatic, and usually incidentally diagnosed. At times they are diagnosed during rapid sequence intubation, as they may contribute to endotracheal intubation difficulty. Moreover, there is question as to the correlation between vallecular cysts and the incidence of acute epiglottitis, as a vallecular cyst may become infected and cause a localized expansion of inflammation and infection. This expansion from the vallecula progresses to epiglottis.

Case Report

- 40-year-old male presenting to the emergency department for evaluation of sore throat. He reports symptoms were onset yesterday, gradually worsening throughout the day and today prompting him to seek evaluation. He states at times he feels that his voice is hoarse as well, also with similar time of onset. He reports associated painful swallowing. He denies any fevers, chills, sick contacts, cough, congestion, rhinorrhea, ear pain, neck pain or stiffness, rash, recent travel, recent insect bites. He had all of his childhood vaccinations, but was not vaccinated for COVID-19. he notes having the infection twice, most recently several weeks ago and recovering well at home.
- The patient was seen by ED triage team and his presenting acuity determined to be ESI Level 4.
- Physical examination significant for mild posterior pharyngeal erythema and 2+ bilateral tonsillar swelling without exudates. No noted lymphadenopathy. Remainder of physical examination normal.
- Rapid strep testing was negative, and specimen for throat culture was sent.
- Patient was reevaluated for anticipated discharge and noted to have slight voice change, no respiratory distress, no other new symptoms or examination findings.
- Soft tissue neck CT with IV contrast was performed and significant for vallecular abscess measuring 2.0x1.9cm with adjacent edema of the tongue and epiglottitis. Antibiotics were initiated and patient was transferred to a tertiary care center for further evaluation.
- Inpatient course was significant for ENT evaluation including nasopharyngeal laryngoscopy. An I&D of 5 cc of purulent material drained from the abscess with significant improvement of patient's pain and return to baseline phonation.

References

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Discussion

Previous authors have examined changes in the incidence of this disease process and have found that this may be up trending. The limitations of these studies relate to when they were conducted, many ranging from 20-45 years ago. More must be done to examine current incidences so we can best risk stratify patients of developing infectious sequelae of these vallecular cysts. By having this better understanding, we can anticipate potential difficulties in airway management and develop working plans prior to attempting intubation, and thereby improve quality of care.

We suspect that given epiglottic cyst association with suppurative epiglottic infection, similar associations would be seen relating to vallecular cysts and infection. More work therefore needs to be done to investigate this hypothesis to potentially further our understanding of this potentially critical factor in airway management.

Conclusion

Disease processes which pose risk of progression into airway emergencies must be studied in detail to properly assess these risks and better our preparedness in the event an airway emergency presents. We have demonstrated a case in which a vallecular cyst likely progressed into an abscess and epiglottitis in a rapid fashion. This could have progressed further into an airway emergency had the patient not sought evaluation.