

# Asymptomatic presentation of Vallecular Cyst in an adult

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## Abstract

Vallecular cyst is an uncommon condition representing approximately 5% of all benign laryngeal lesions<sup>1</sup>. It has been reported under different names such as- mucous retention cyst, epiglottic cyst, base of the tongue cyst, congenital cyst, more recently ductal cyst<sup>2</sup>. Here we report a patient of 40 years with vallecular cyst presenting as foreign body sensation of throat. The cyst was excised by diathermy and dissection method. Histopathological examination revealed vallecular lesion with mucous glands, with an external lining of squamous epithelium<sup>3,4,5</sup>. There was no recurrence after one year follow up period.

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**Key words:** *Vallecular cyst, Dissection method.*

## Introduction

Among the benign lesion in larynx, laryngopharynx cystic lesions are common entities. Vallecular cysts are usually retention cysts of minor salivary glands<sup>6</sup>. Cysts of the vallecula are not common, accounting for 10.5% to 20.1% of all laryngeal cysts. In case of neonates and infants it may be the dangerous causes of stridor. When seen in adults, cyst is usually asymptomatic<sup>3</sup> or there are only subtle symptoms such as foreign body sensation of throat, difficulty in swallowing, voice change, dysphagia, odynophagia, dyspnea<sup>7,8</sup>. In contrast, cyst may lead to stridor and or respiratory distress in neonates and young adults because of their relatively small airway and cause severe airway obstruction and may death<sup>9</sup>. Vallecular cysts may also be discovered during administration of anaesthesia, where they may obscure the view of the glottis and cause difficult endotracheal intubation<sup>10,11</sup>. There are different methods of management such as marsupialization, de-roofing, excision, excision by snare, laser, electrocautery, repeated aspiration. We performed conventional dissection and diathermy method.

## Case history

A 40 years old male presented to us with history of foreign body sensation of throat for 2 months. He has no history of haemoptysis, evening rise of temperature, change of voice, stridor, weight loss. There was no evidence of others swellings or lymphadenopathy in the head neck region. On examination by indirect laryngoscopy revealed about 4x4 cm translucent swelling in the vallecula which was benign in appearance,

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non erythematous, and with prominent overlying vasculature. On general examination revealed no abnormalities. All vital signs were normal. Laboratory evaluation was not significant. The patient was advised for excisional surgery followed by histopathological examination to confirm the diagnosis as well as therapeutic purpose. Under general anaesthesia direct laryngoscopy was done and confirmed the findings of indirect laryngoscopy. Followed by Boyle-Davis mouth gag was used for exposure of oropharynx by keeping endotracheal tube one side (Fig.1). The cyst was attached firmly to the base of the tongue and lingual surface of epiglottis (Fig.2). Then wide bore needle aspiration was done for decompression of the cyst and was performed to facilitate excision. The cyst was removed by diathermy and dissection method. The post operative period was uneventful and patient was discharged on the 3rd postoperative day with the coverage of broad spectrum antibiotic for seven days. Histopathological examination revealed vallecular lesion with chronic active inflammatory changes associated with mucous glands, with an external lining of squamous epithelium (Fig.3). After follow up period of 10 days wound was found healed with no evidence of cysts remnants. Indirect laryngoscopy shows no abnormality in vallecula. 2 months interval follow up patient was found free of any complain regarding throat. One year follow up given and no recurrence occurred (Fig.4).



Fig.2 : Showing vallicular cyst before surgery

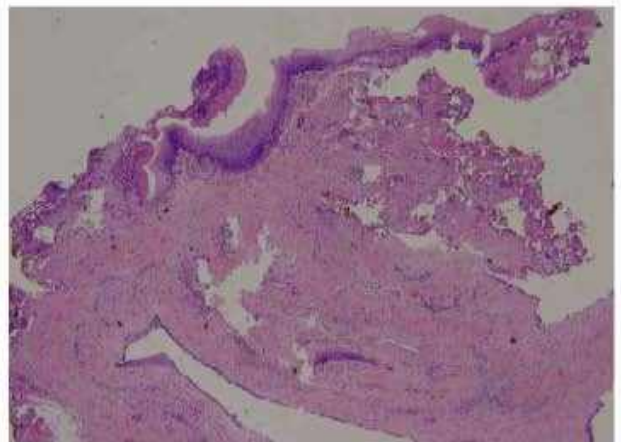


Fig.3: The pathologic report, shows the presence of a benign cyst lined by squamous epithelium with chronic active inflammation (H&E, x40).



Fig.1 : Showing anaesthetic preparation of patient



Fig. 4: Showing post surgical recovery after 2 months

## Discussion

Vallecular cysts are retention cysts of minor salivary glands in the vallecula which is a space between base of the tongue and lingual surface of epiglottis. Obstruction of the mucous gland leads to cyst formation and continued secretion leads to increase in size of the cysts. In 1881 Abercrombie provided the 1st description of a laryngeal cyst<sup>12,13,14</sup>. In 1987 Mitchell et al. published the largest single series consisting of 20 cases experiencing of the Hospital for Sick Children, London over a fifteen years period<sup>14</sup>. In 1980 Holinger<sup>15</sup> reported on 219 children presenting with stridor to two Chicago pediatric units over four years. Two of these cases (0.9%) were due to laryngeal cysts. In 1984 Wood<sup>16</sup> studied 225 children with stridor and found that four patients had supraglottic cysts and two had subglottic cysts. But there were no vallecular cysts in these two large studies of patients with upper airway anomalies. They are asymptomatic when small in size but large cysts may cause foreign body sensation, dysphagia, change of voice, stridor in case of infants. The differential diagnosis includes internal thyroglossal cyst, dermoid cyst, lingual thyroid, teratomas, lymphangiomas, haemangiomas. We excised the cyst by a set of tonsillectomy instruments which was safe, cost effective and the result was good. Some times in such patient needs tracheostomy, in where anaesthetics failed to introduce endotracheal tube through oropharynx due to mechanical obstruction for large vallecular cyst.

## Conclusion

Such a vallecular cysts as in this case, can be a disease presenting with serious symptoms and resulting in death due to respiratory obstruction. Therefore, if upper-airway problems are suspected, it is necessary to examine with careful laryngoscopy.

## References

1. Newman BH, Taxy JB, Laker HI. Laryngeal cysts in adults: a clinicopathologic study of 20 cases. *Am J Clin Pathol* 1984; 81:715-20.
2. DeSanto LW, Devine KD, Weiland LH. Cysts of the larynx classification. *Laryngoscope* 1970;80:145-76.
3. Gutierrez JP, Berkowitz RG, Robertson CF. Vallecular cysts in newborns and young infants. *Pediatr pulmonol* 1999;27: 282-85.
4. Hsieh WS, Yang PH, Wong KS, Li HY, Wang EC, Yeh TF. Vallecular cyst: an uncommon cause of stridor in newborn infants. *Eur J Pediatr* 2000;159:79-81.
5. Birgit A, Ingeborg L, Markus S, Ulrich W, Karl P, Bodo N. Life-threatening vallecular cyst in a 3-month-old infant: case report and literature review. *Clin Pediatr* 2004; 43: 287-90.
6. Bhandary S. Innovative Surgical Technique in the Management of Vallecular cyst. *Online J Health Allied Scs.* 2003;2:2.
7. C. Arens, H. Glanz, and O. Kleinsasser, "Clinical and morphological aspects of laryngeal cyst," *European Archives of Oto-Rhino-Laryngology*, 1997; vol. 254, no. 9-10, pp. 430-36.
8. L.W. DeSanto, K. D. Devine, and L. H. Weiland, "Cyst of the larynx-classification," *Laryngoscope*, 1970: vol.80, no. 1, pp.145-76.
9. Yao TC, Chiu CY, Wu KC, Wu LJ, Huang JL. Failure to thrive caused by the coexistence of vallecular cyst, laryngomalacia and gastroesophageal reflux in an infant. *Int J Pediatr Otorhinolaryngol* 2004;68:1459-64.
10. D.G. Mason and K.J. Wark, "Unexpected difficult intubation. Asymptomatic epiglottic cysts as a cause of upper airway obstruction during anaesthesia," *Anaesthesia*, 1987: vol. 42, no. 4, pp. 407-10.
11. J. Rivo and I. Matot, "Asymptomatic vallecular cyst: airway management consideration," *Journal of Clinical Anesthesia*, 2001: vol. 13, no. 5, pp. 383-86.
12. Tuncer U, Aydogan L.B, Soylu L. Vallecular cyst: a Cause of failure to thrive in an infant. *Int J Pediatr Otorhinolaryngol* 2002; 65:133-35.
13. Gluckman PG, Chu TW, van Hasselt CA. Neonatal vallecular cysts and failure to thrive. *J. Laryngol Otol* 1992;106:448-49.
14. Mitchell DB, Irwin BC, Bailey CM, Evans JN.G. Cyst of the infant larynx. *J Laryngol Otol* 1987;101:833-38.
15. Holinger LD. Etiology of stridor in the neonate, infant and child. *Ann Otol Rhinol Laryngol* 1980;89:397-400.
16. Wood RE. Spelunking in the pediatric airways: exploration with the flexible bronchoscope. *Pediatr Clin North Am* 1984;31:785-99.