

A Huge Epiglottic Cyst Causing Airway Obstruction in an Adult

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An epiglottic cyst causing airway obstruction is rare in an adult. Early definitive diagnosis and management obviate an unnecessary tracheostomy. We report a case of a 64-year-old woman who arrived at our hospital with progressive stridor and foreign body sensation when swallowing for 6 weeks. A hot potato voice and biphasic stridor were remarkable upon physical examination. Indirect mirror and fibroscopic examination revealed a huge epiglottic cyst. The neck lateral X-ray and computed tomography scan demonstrated a huge cystic mass over the epiglottis. A 2.5 × 3.0 cm cystic mass was removed with endoscopic CO₂ laser after needle decompression. The patient was discharged on the third day after surgery without complications. An epiglottic cyst in an adult seldom causes upper airway obstruction and is easily ignored by clinicians. We emphasize that complete airway evaluation including routine check-up of the larynx is mandatory for patients with intractable obstructive airway disease. Endoscopic laser surgery is effective in the surgical removal of an epiglottic cyst. (*Chang Gung Med J* 2002;25:275-8)

Key words: epiglottic cyst, airway obstruction.

Laryngeal cysts constitute approximate 5% of benign laryngeal lesions.⁽¹⁾ The majority of cysts originate from the epiglottis.⁽²⁾ A congenital epiglottic cyst almost always causes neonatal respiratory distress or even sudden death^(3,4) but this rarely occurs in adults. Herein we report on a 64-year-old woman with an epiglottic cyst presenting with stridor; the cyst was successfully removed using CO₂ laser therapy.

CASE REPORT

The patient was a 64-year-old woman who presented with a lump in her throat and progressive stridor for 6 weeks. She denied having any other systemic disease and had previously been treated with a bronchodilator for obstructive airway disease. Physical examination revealed a significant hot pota-

to voice and biphasic stridor. Otherwise, her vital signs and general condition were stable. Fibroscopic



Fig. 1 A huge epiglottic cyst as revealed by fibrosopic examination.

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Fig. 2 Neck lateral X-ray showing a soft-tissue shadow in the epiglottic area (arrowhead) mimicking acute epiglottitis.

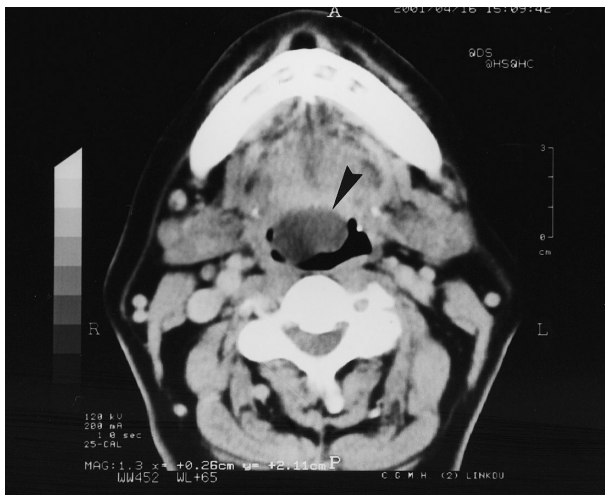


Fig. 3 CT scan demonstrating a huge cystic lesion (arrowhead) measuring 2.5 x 1.8 cm in the epiglottic area.

examination showed a huge epiglottic cyst (Fig. 1). A lateral X-ray of the neck revealed a soft-tissue shadow in the epiglottic area (Fig. 2). A computed tomographic (CT) scan of the neck demonstrated a huge low-density mass at epiglottis and vallecula measuring 2.5 x 1.8 cm (Fig. 3). Under endotracheal

intubation with general anesthesia, direct laryngoscopy and decompression of the mass with a long laryngeal needle were performed. Then, the cyst base which was attached to the lingual surface of the epiglottis was exposed. A 2.5 x 3.0 cm cystic mass was removed with CO₂ laser. The symptoms were relieved after surgery, and she was discharged 3 days later with no complications. The cyst had not recurred after a 6-month follow-up.

DISCUSSION

From a 10-year review of Mayo Clinic experience, DeSanto et al.⁽⁵⁾ reported that 52% of laryngeal cysts originate from the epiglottis, with most coming from the lingual surface. They divided laryngeal cysts into ductal and saccular types. Epiglottic cysts and vallecular cysts were attributed to the ductal type and are caused by obstruction of the submucous duct. Laryngeal cysts confined to the vallecular space are known as vallecular cysts. Because the vallecular space is full of lymphoid and glandular tissue which is easily obstructed, vallecular cysts in adults are not rare.⁽⁵⁾ Epiglottic cysts are specifically defined as cysts occurring at the lingual and dorsal surfaces of the epiglottis. Most adult epiglottic cysts are detected in the 6th decade.⁽⁶⁾

Presenting symptoms of epiglottic cysts vary with cyst size, age of the patient, as well as extension into the airway. Epiglottic cysts in neonates often cause sudden infant death.^(3,4) Adult epiglottic cysts often cause a lumpy sensation in the throat but seldom produce respiratory distress. Secondary infection of an epiglottic cyst may progress to epiglottitis or epiglottic abscess.^(2,7) Heeneman and Ward⁽⁸⁾ reviewed 26 such cases in 40 years, most of which were adults. The major organisms identified were pneumococci, beta-hemolytic streptococci, and staphylococci. A mortality rate of up to 30% has been reported.⁽⁸⁾ So, early diagnosis and appropriate therapy of epiglottic cysts are of utmost importance.

Indirect mirror or fibroscopy may provide the first clue of an epiglottic cyst, and further imaging studies may be needed. Neck lateral X-ray may mimic acute epiglottitis with a thumb sign. CT scan can demonstrate a low-density mass at the tongue base. Ring-shaped contrast enhancement may occur in an infected cyst. Air bubbles in a cyst are some-

times found, but should be differentiated from an epiglottic abscess.⁽⁷⁾

Treatment of epiglottic cysts depends on their size and on the clinical symptoms. Surgery is necessary for large ones. Various modalities of therapy include endoscopic excision, marsupialization, and deroofing with or without a CO₂ laser.^(9,10) A lateral pharyngotomy approach to remove the cyst is preserved for recurrent cases.^(10,11) An endoscopic technique with a CO₂ laser can be successfully applied in nearly all cases due to the laser's good hemostatic effect.⁽⁸⁾ To avoid local recurrence, the cyst wall has to be completely resected.⁽⁸⁾

Surgery can usually be done under oral intubation, but is difficult in a patient with a huge cyst. Aspiration of the contents to reduce the cyst size helps and can avoid a tracheostomy. Prophylactic antibiotics and adequate hydration after surgery are always utilized to avoid acute epiglottitis.⁽¹¹⁾

In summary, a huge epiglottic cyst may simulate other obstructive airway disease, but it can easily be ignored by clinicians. Secondary infection of an epiglottic cyst can cause catastrophic acute airway obstruction and requires an emergent tracheostomy. Early definitive diagnosis and management obviate an unnecessary tracheostomy. Resection with an endoscopic CO₂ laser is recommended as the treatment of choice.

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巨大會厭囊腫引起之成人呼吸道阻塞

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成人會厭囊腫造成呼吸道阻塞者極為少見，正確的診斷及處置可避免不必要的氣切。本文提出一例報告，並就其病史及治療方式提出討論。病患為64歲女性，因長期喉部異物感及運動性喘鳴到院求診。側頸部X光攝影及電腦斷層掃描檢查發現會厭軟骨上方有一囊狀腫塊。我們於全身麻醉下，置入喉鏡，先以長針吸取內含物後，再以二氧化碳雷射將其完全切除，囊腫約2.5×3.0公分。病患術後症狀即好轉且無併發症，經追蹤六個月囊腫無復發跡象。由於成人會厭囊腫易被臨床醫師忽略且持常引起嚴重併發症，因此我們建議，對藥物反應不佳之阻塞性呼吸道疾病患者，應例行作喉部檢查，以早期診斷，而對阻塞呼吸道之巨大會厭囊腫，以內視鏡雷射手術切除可得到良好的效果。(長庚醫誌 2002;25:275-8)

關鍵字：會厭囊腫，呼吸道阻塞。