Abstract: Laryngeal cysts constitute approximately 5% of benign laryngeal lesions. The majority of cysts originate from the epiglottis. Epiglottic cysts are generally benign lesions which can affect all age groups, but with increased frequency in adults. Depending on their location and size they can cause airway obstruction and potentially lead to sudden death. Laderer divides cysts of the epiglottis into 3 classes: congenital, dermoid and retention, the latter being the commonest. The cysts are usually soft and compressible, often creamy pink in colour with blood vessels coursing over the surface and are commonly pedunculated rather than sessile. They range in size from 1mm to 5cm in diameter. We report a case of a large epiglottic cyst presenting with dysphonia and dysphagia. Microlaryngoscopic excision of the epiglottic cyst was done under GA and histopathological diagnosis was ductal cyst.

I. INTRODUCTION

Cysts of the epiglottis are uncommon. They are occasionally found by a laryngologist during routine throat examination. Frequently they are quite symptomless and only when they are of sufficient size cause discomfort. Dysphagia, however, seldom occurs and even quite large cysts are well tolerated. This is probably due to the soft nature of the swellings which are usually mucus retention cysts. Laryngeal cysts are classified into epithelial (congenital, traumatic implantation, false and retention) and non – epithelial (lymphatic, parasitic and vocal abuse nodule. The majority of cysts originate from the epiglottis of which retention cyst is the commonest. Salivary duct cysts may be acquired or congenital. Majority of them are acquired secondary to obstruction. Some authors therefore prefer the term “retention cyst” while others use the term simple cyst”. Mucous retention (duetal cysts arise when the duct of a mucus gland becomes plugged and retains glandular secretions.

II. CASE REPORT

A 17yr old female presented to ENT OPD, Dr. D.Y.Patil Medical College, Pimpri, Pune, with complaints of dysphagia and dysphonia since 8-9 months. There was no h/o dyspnoea. On examination of the throat, oral cavity was normal. A pearly white globular soft swelling was seen on the lingual surface of the epiglottis. It was about 2x1.5cm in size obscuring the vision of anterior part of the vocal cords without compromising the airway (Fig 1). Routine bloods, urine investigations, X – Ray chest, neck AP and lateral view was done. Patient was subjected to CT scan from skullbase to thoracic inlet. CT Scan revealed an isodense soft-tissue shadow on the epiglottis obscuring 1/3rd of the laryngeal inlet (Fig 2).
Under GA, Microlaryngoscopic excision of the epiglottic cyst was done completely. Post-operative period was uneventful. The patient was treated with intravenous antibiotics and anti-inflammatory, steam inhalation, steroids and voice rest. The histopathology showed bits of tissue lined by stratified squamous epithelium. Subepithelial tissue showed a cyst lined by ciliated columnar epithelium and intermediate epithelium. The diagnosis was Ductal Cyst in Epiglottis. 2 weeks after surgery the videolaryngoscopic findings were normal (Fig 3&4).

III. DISCUSSION

Mucous cysts are pseudocysts, because no true lining is present; they are also called mucous retention cyst or mucoceles. From a 10-year review of Mayo– Clinic experience, DeSanto et al. reported that 52% of laryngeal cysts originate from the epiglottis, with most arising 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. Epiglottic cysts are specifically defined as cysts occurring at the lingual and dorsal surfaces of the epiglottis. The term “cyst” comprises all vesicular pathological structures containing material of a different character and, usually, of a different physical phase to the tissue comprising their walls. It is thus not limited to structures lined internally by an epithelium. The pathophysiology underlying these cysts is thought to be inflammation of the larynx leading to obstruction of gland ducts and in turn causing retention of mucus and ultimately the formation of cysts. Most adult epiglottic cysts are detected in the 6th decade. Presenting symptoms of epiglottic cyst vary with cyst size, age of the patient and extension into the airway. Epiglottic cysts in neonates often cause sudden infant death. Adult epiglottic cysts often cause a lumpy sensation in the throat but seldom produce respiratory distress.

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. Treatment of epiglottic cysts depends on their size and on the clinical symptoms. Surgery is required for larger ones. Various modalities of therapy include endoscopic excision, marsupialization, and deroofing with or without a CO2 laser. A lateral pharyngotomy approach to remove the cyst is reserved for recurrent cases.

During induction of anaesthesia, symptomless undiagnosed epiglottic cysts may cause great complications when muscular relaxation may drive the cyst into the larynx causing partial or complete laryngeal obstruction, which may lead to inability to ventilate and the development of respiratory failure. Another potential complication of unsuspected epiglottic cysts is acute infection and abscess formation. This may lead to airway oedema and subsequent respiratory compromise. Therefore it is important to identify patients with epiglottic cysts on routine throat examination. This allows treatment and prevention of potentially fatal complications. Prophylactic antibiotics and adequate hydration after surgery are always utilized to avoid acute epiglottitis.
References

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