

Case Report

Epiglottic dermoid cyst: a rare case report

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Received: 14 May 2021

Revised: 18 June 2021

Accepted: 22 June 2021

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ABSTRACT

Epiglottis dermoid cysts are generally benign lesions, which can affect all the age groups. Dermoid cysts arising from the head and neck region are rare, slow growing, and well-circumscribed neoplasm. Symptoms are non-specific and usually related to the size and the location of the lesion. A dermoid cyst of the epiglottis is extremely rare. To the best of our knowledge, only one case has been previously reported in the English literature and a total of three cases were presented in Russian literature in two studies. In our report, a middle-aged male presented with foreign body sensation in throat for 1-year and difficulty in swallowing for three months, mainly for solids. Thorough history, clinical examination and relevant investigation were done. Direct laryngoscopy was done and complete surgical excision was done. The aim of the case report is to present a rare case of epiglottic dermoid cyst, its clinical presentation, radiological features and surgical management.

Keywords: Dermoid cyst, Epiglottis, Direct laryngoscopy

INTRODUCTION

A dermoid cyst is a rare, benign, and developmental tumor. It primarily occurs in the gonads. Moreover, it can display localization near the midline in any region of the body.^{1,2} The head and neck region is an occasional area for the development of this tumor.³ It is a slow-growing and painless lesion. It can occur at any age, but it is more common among young adults.¹ To the best of our knowledge, in English literature, the first and only dermoid cyst case originating from the epiglottis was reported by McKenzie in 1930.⁴ In this study, a case of a dermoid cyst arising from the epiglottis is presented because it is an extremely rare clinical condition and the characteristics, its clinical presentation, radio-logical features and surgical management are summarized.

CASE REPORT

A 30 year old male presented with foreign body sensation in throat for one year and difficulty in swallowing for three months mainly for solids. Initially foreign body

sensation was present during swallowing and now it is present continuously. Not associated with pain, cough, choking spells, respiratory distress, hoarseness of voice, and regurgitation of food.

Thorough history and clinical examination were done. Ear nose throat examination was normal. Indirect laryngoscopy was done which showed a globular swelling, slight yellow behind the epiglottis (Figure 1). A plain and contrast enhanced computerized tomography (CECT) of neck was done, which showed well defined iso-dense lesion measuring 3.5x2 cm in the oropharynx adhering to left posterolateral wall and posterior aspect of epiglottis (Figure 2). On Contrast, lesion showed specks of calcification with mild enhancement.

Case management was challenging, as it was difficult intubation and warranted tracheostomy, which was surgical morbidity for the patient. The patient was informed about the surgical procedure, need for tracheostomy and written informed consent was obtained. In order to avoid tracheostomy, we have used a

new technique in this patient. Using a wide bore needle, thick cheesy material was aspirated from the cyst, which led to reduction in the size of the cyst, allowing space for anesthetist to carry out intubation. Direct laryngoscopy was done under general anesthesia and endoscope with camera connected. Cyst arising from the left lateral border of epiglottis and posterior surface is noted. The cyst is held with forceps and cut. Cyst is excised from all the attachments and delivered in total (figure 3). Cyst was cut open to visualize the contents in the cavity (Figure 4). Specimen was subjected to histopathology which revealed it to be dermoid in origin (Figure 5).

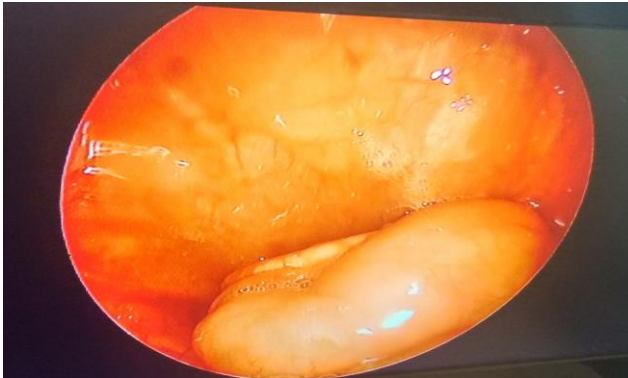


Figure 1: Indirect laryngoscopy of cyst with epiglottis.

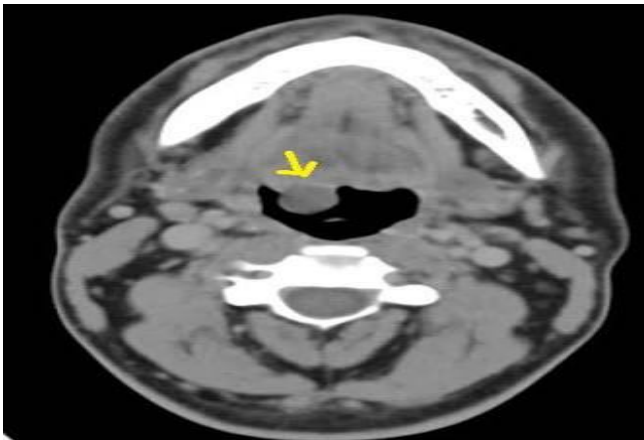


Figure: 2 CECT scan of the cyst.



Figure 3: Post-op surgical specimen of the cyst removed in total.

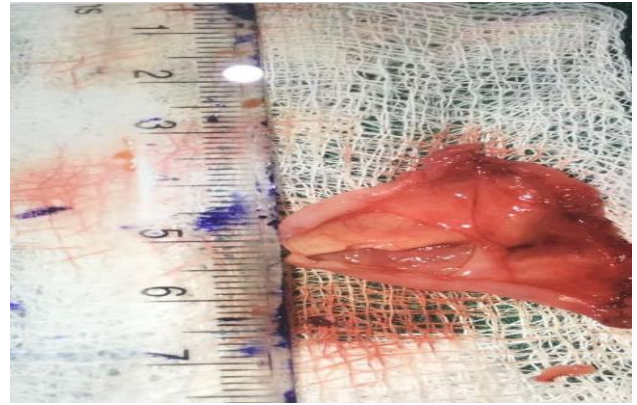


Figure 4: Cyst cut open to reveal the interior of cyst cavity.

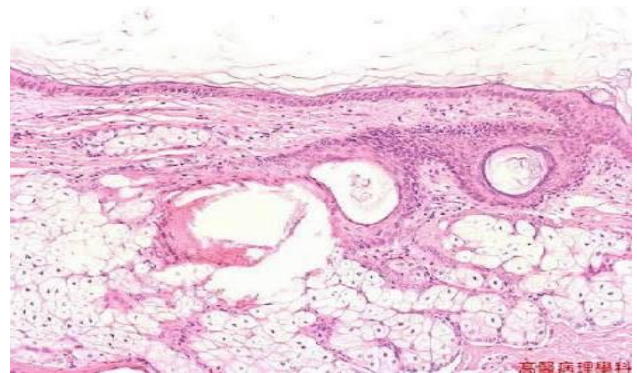


Figure 5: Histopathology under microscopic examination.

Cystic swelling in the posterior surface is noted and marsupialization of the mucosa is done. Post-operative period uneventful. No recurrence on follow-up for 1 year. Till date the patient is on follow up and is symptomatic.

DISCUSSION

Dermoid cysts, which are developmental anomalies, are also called dysontogenic cysts. They originate from some epithelial cell residues occurring during the midline fusion of the first and second branchial arches in the 3rd and 4th week of embryologic life. In addition, it has been specified in literature that they can be acquired as a result of traumatic or iatrogenic implantation.¹

Dermoid cysts can occur in any region of the body.² Of all dermoid cysts, 6.9% develop in the head and neck region and 1.6% develop in the oral cavity.³ In the head and neck region, it mostly occurs in the 1/3 lateral of the eyebrow and the orbit and nasal cavity follow it.^{1,2}

Within our knowledge, only four cases of dermoid cysts originating from the epiglottis have been reported (one in English literature and three in Russian literature).⁴

They equally occur in both sexes, frequently between the ages of 20 and 30 years.⁵ Symptoms are not specific, and

they differ depending on the anatomic regions where they develop.⁶ In addition, a dermoid cyst may not present with a clinical sign before reaching a certain size or putting pressure on vital structures. A dermoid cyst that develops in the epiglottis can cause dyspnea, dysphonia, and airway obstruction.

In the case reported, foreign body sensation in throat and difficulty in swallowing were the most remarkable symptoms. An apparent respiratory distress was not observed. FNAC was not performed in this case because of the anatomic location of lesion and chances of aspiration of contents. Pre-operative contrast enhanced CT was very significant for revealing the nature of the lesion, its extent, anatomical relations, and about its invasion into surrounding structures. In this way, it was possible to establish an accurate diagnosis and to determine the most appropriate surgical approach for dermoid cysts.

CONCLUSION

A dermoid cyst arising from the epiglottis is rare. It is a painless, slow-growing, and encapsulated lesion, and it does not cause any symptom until it reaches a certain volume. Its main symptoms are muffled voice, dyspnea, and difficulty in swallowing. Radio-logical imaging techniques are important for determining the nature of lesion and for surgical planning. Treatment is performed with complete surgical excision. The lesions growing in the epiglottis, despite it being a rare location for dermoid cysts, should be taken into consideration in the differential diagnosis. Since surgical excision is challenging due to deep location of lesion and difficult intubation due to available narrow space, pre-operative aspiration with wide bore needle helps in debulking of

lesion, avoids tracheostomy and allows wide access for complete excision and marsupialization of the cyst.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Ramchandra, Nandyal CB, Deshmukh K. Epiglottic dermoid cyst: a rare case report. *Int J Otorhinolaryngol Head Neck Surg* 2021;7:1381-3.