

Granular Cell Tumour of Larynx— A Case Report

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Abstract

Granular cell tumors, also called Abrikossoff tumors, are benign, slowly growing neoplasms. They may occur anywhere in the body, but head and neck accounts to 45% - 65% of these cases. The most common site is the tongue. Larynx is relatively an uncommon location for these tumours, accounting for approximately three to 10 per cent of the reported cases. Laryngeal granular cell tumour is extremely rare accounting for only 19 reported cases under the age of 17 years. As many as 10% of patients experience multifocal synchronous or metachronous tumors. We present a rare case report of granular cell tumour of the larynx.

Keywords

Granular Cell Tumour of Larynx

1. Introduction

Granular cell tumors, also called Abrikossoff tumors, are benign, slowly growing neoplasms. They may occur anywhere in the body, but head and neck accounts to 45% - 65% of these cases [1]. The most common site is the tongue. Larynx is relatively an uncommon location for these tumours, accounting for approximately three to 10 per cent of the reported cases [2].

Laryngeal granular cell tumour is extremely rare accounting for only 19 reported cases under the age of 17 years [3]. Granular cell tumors typically develop in the fourth and fifth decades of life, and are quite rare in children. Blacks are affected more commonly than other races. A slight female preponderance has been reported. As many as 10% of patients experience multifocal synchronous or metachronous tumors [4].

We present a rare case report of granular cell tumour of the larynx. An informed consent has been taken from the parents of the patient to publish this study.

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2. Case Report

A 13 years old girl presented to our out patient department with the complaints of shortness of breath since 2 years. Shortness of breath started insidiously and gradually progressed to grade 3 [according to NYHA scale] dyspnoea and noisy breathing at rest. It was associated with hoarseness of voice and deterioration in voice quality. There was no history of hematemesis, hemoptysis or dysphagia. She was being treated as a case of bronchial asthma with bronchodilators. On examination there was biphasic stridor. Videolaryngoscopy (**Figure 1**) showed a smooth swelling over posterior 2/3rd of left vocal cord. Left vocal cord was not visible while right vocal cord was mobile and normal. Fibre-optic nasolaryngoscopy (**Figure 2**) was done which showed edema over left arytenoid and mass over left vocal cord and false cord. Right vocal cord was normal and mobile. Patient was advised a contrast enhanced CT scan (**Figure 3**).



Figure 1. Videolaryngoscopic picture showing mass over the posterior 2/3rd of left vocal cord fibreoptic laryngoscopy with stroboscopy was done. On stroboscopy mucosal waves were absent over left vocal cord.



Figure 2. Fibreoptic laryngoscopy with stroboscopy confirming the findings.

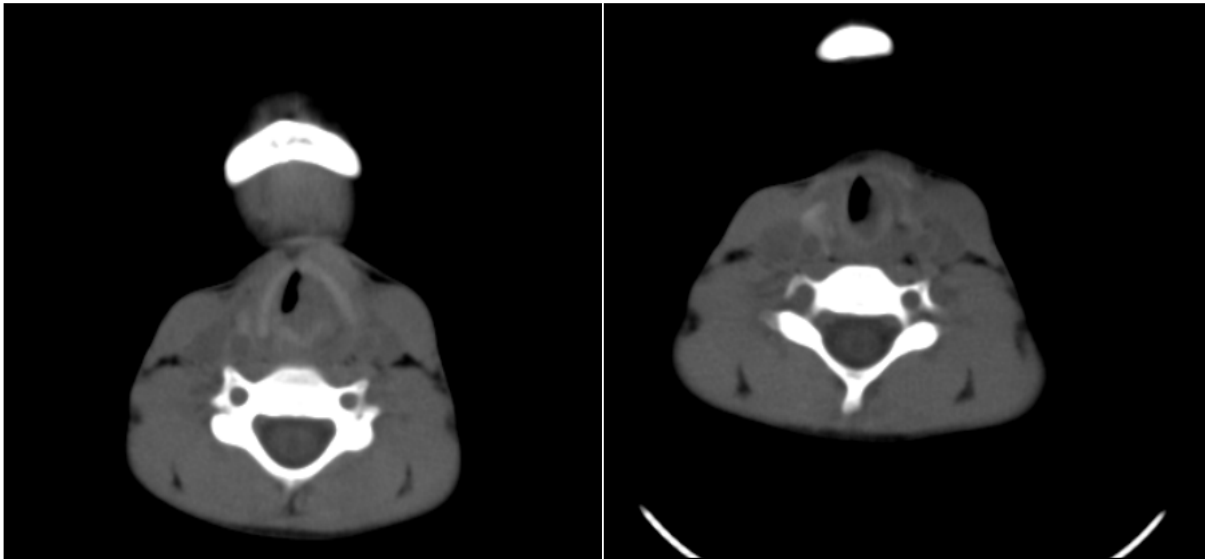


Figure 3. CECT neck revealed a heterogenous edematous thickening of left vocal cord and aryepiglottic fold with narrowing of glottic airway measuring 8×7 mm suggestive of an inflammatory aetiology and less likely of a neoplastic process.

Tracheostomy followed by biopsy and excision of the mass was planned. Patient underwent tracheostomy elsewhere in view of stridor and reviewed 2 weeks later for biopsy. Microlaryngeal examination along with biopsy and coblator assisted reduction of mass was done under GA. Part of the growth from the left vocal cord and arytenoid was reduced using coblation. Subglottic growth was cartilaginous hence left back.

Histopathology showed stratified squamous epithelium with granular eosinophilic cytoplasm and pseudoepitheliomatous hyperplasia at places suggestive of granular cell tumor.

Immunohistochemistry was positive for S100 and CD68.

After confirmation of diagnosis, patient was again taken up for microlaryngeal surgery. Mass arising from the left vocal cords and left subglottis was removed using cold instruments and coblation and airway was created. Patient was then kept on regular follow up every 2 - 4 weeks for 6 months. Videolaryngoscopy at 5 month post operatively showed a smooth mass over left arytenoid and inter-arytenoid area. Both vocal cords were mobile and glottic airway was adequate. Patient was taken up for revision microlaryngeal surgery. Mass was arising from the inter arytenoid area extending into left arytenoid which was reduced using coblation. Videolaryngoscopy on 8th POD revealed an adequate airway, hence decannulation was done after capping the tracheostomy tube and observing for 48 hrs. Tracheostomy was closed as secondary intention a month later. The patient evolved satisfactorily without dyspnoea. She has now been kept on regular follow up. Presently the patient is on 2nd year of follow up is doing well with no recurrence.

3. Discussion

Granular cell tumours are benign tumours occurring in the head and neck. The occurrence of these tumours in the larynx and pediatric population is extremely rare with only about 19 cases reported in the literature [3]. They usually present as a solitary lobulated mass and the diagnosis of these tumours is mainly based upon the histopathological examination and immunohistochemistry. Granular cell tumours are strongly positive for S100 protein and macrophage antigen CD68. In our case the tissue was positive for both the antigens; hence the definitive diagnosis of granular cell tumour was established.

In our case initial biopsy was taken to confirm the diagnosis and later complete excision of mass was done. Recurrence in our case was probably due to incomplete tumour excision.

Presently after the revision surgery patient has completed her 2nd year follow up and is doing well with no recurrence and good voice.

Malignant transformation of these tumours is extremely rare with occurrence in less than 2% of the cases [5].

We present this case report due to its rarity of occurrence.

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