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CASE REPORT

Granular Cell Tumor of Larynx in a Young Boy

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ABSTRACT

Granular cell tumors are rare head and neck tumors and not a common presentation in larynx. We present a young boy of 12 years attending with hoarseness of voice. Clinical examination showed a well-defined lesion on the vocal process of the left vocal cord which was excised completely under operating microscope. The biopsy report came as histological surprise as granular cell tumor. The case is presented for its rarity of the lesion in the unusual site of the larynx.

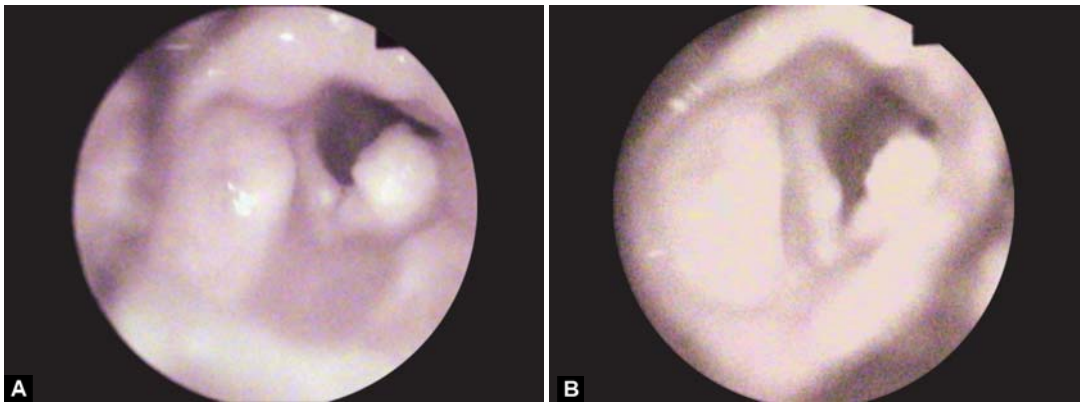
Keywords: Granular cell tumor, Abirkosoff's tumor, Benign laryngeal tumors.

INTRODUCTION

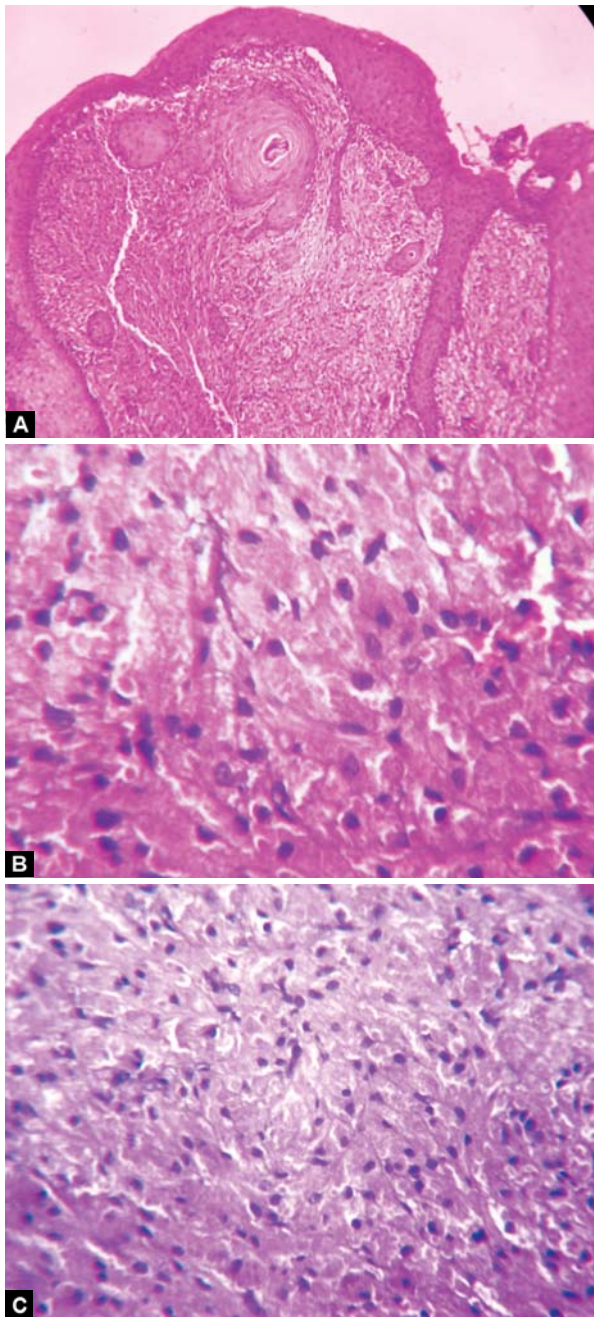
Granular cell tumors, also called Abirkosoff tumors, are benign slow growing neoplasms presumably of Schwann cell origin. They may occur anywhere in the body, although 50% occur in head and neck. The larynx is an uncommon location for the tumors and accounting for approximately 3 to 10% of cases. Clinically, patients with laryngeal granular cell tumor present with hoarseness, dysphagia, cough and less frequently stridor. Most of the tumors are less than 2 cm, but larger tumors can cause difficulty in breathing. Vast majority arise from posterior two thirds of vocal fold and arytenoid region.[1] The gross appearance of tumor is well-circumscribed, firm, solitary, polypoid, sessile, papillary or cystic.[2] Most often the diagnosis comes as a histologic surprise.We report a case of 13-year-old boy with laryngeal GCT originated from the vocal process of arytenoid, very rare location.

CASE REPORT

A 12-year-old boy presented with hoarseness of voice of 6 months duration. The boy's health was unremarkable but for the change in voice which was harsh and breathy. Video-laryngoscopic examination revealed a smooth, regular, sessile lesion on the posterior part of the left vocal fold (Figs 1A and B). He never complained any other problem, such as breathlessness or dyspnoea or any swallowing problems. He was investigated thoroughly and taken up for microlaryngoscopic excision. The solid lesion, about 1 cm in diameter was situated on the vocal process of the vocal fold and falling on to the superior aspect of the middle third of the vocal fold. A microflap was developed close to the lesion and submucosal excison was performed. The mucosa was approximated to facilitate primary healing. Postoperative period was uneventful and he regained his voice after a brief course of voice therapy. The HPE report was a



Figs 1A and B: Videolaryngoscopic picture of the smooth contoured tumor on the left vocal fold



Figs 2A to C: Histopathological pictures of the granular cell tumor

surprise and turned out to be granular cell tumor. The patient was kept under observation for any possibility of recurrence.

Histopathological examination showed section studied show lining of squamous epithelium with pseudoepitheliomatous hyperplasia and an underlying lesion which is exhibiting sheets of large polygonal to round cells with abundant granular eosinophilic cytoplasm and uniform dot like nuclei. PAS is strongly positive. Histological diagnosis was granular cell tumor (Figs 2A to C).

DISCUSSION

Granular cell tumors are benign and rare lesions. They can present as single slow growing benign small nodule.[3] They can arise in any organ in the body, but they have been mostly seen in head and neck, accounting for approximately 3 to 10 % of reported cases.[4] The larynx is relatively uncommon location for these tumors. Up to date, only about 200 cases have been reported.[5] Granular cell tumors usually either present as asymptomatic nodules or show nonspecific symptoms, such as hoarseness, cough, hemoptysis, stridor, otalgia and dysphagia with bigger size.[3,6] Our patient presented with long history hoarseness of voice. If this tumor is found in children the differential diagnosis with juvenile laryngeal papilloma should be made.[2] The lesion located on the vocal process of arytenoid came out to be a granular cell tumor after histopathological examination.

The commonly used term granular cell myoblastoma found in older literature is a misnomer because tumor is not of muscle origin. Among major theories of origin, some support the tumor derivation from neuronal tissue, histiocytes, fibroblasts or Schwann cells.[4] Approximately, 50 to 65% of laryngeal granular cell tumors have pseudoepitheliomatous hyperplasia. This can lead to misinterpretation owing to similarity of these lesions with squamous cell carcinoma. The typical histological appearance of benign granular cell tumor is large epitheloid and spindle-shaped cells with syncitial abundant eosinophilic granular cytoplasm.[2]

Complete resection of lesion with an attempt to leave remaining laryngeal structures results in total recovery.[5] Majority of reported tumors were removed by microlaryngoscopy. The treatment of choice is complete excision with free margins to minimize the risk of residual disease and minimal functional disturbances. Large lesions may require laryngofissure and partial laryngectomy.[6] Postoperative care is same as other benign laryngeal tumors and follow-up for atleast 3 years is indicated.[7]

In summary, our case is unique because of rare occurence in an unusual site in a young boy. Therapeutic microlaryngoscopic excision turned out to be a granular cell tumor.

REFERENCES

1. Lester DR Thompson. Laryngeal granular cell tumour. ENT Journal. March 2009;88(3):824-25.
2. Sedat Aydin, Arif Sanh, Ozlem Celebi, et al. Laryngeal granular cell tumour, rare location: A case report. Acta Medica 2011;54(1):41-44.
3. Xiaxian Li, Robert B Parke Jr, Jennifer R Rushton, et al. An unusually large granular cell tumour of the pharynx: A case report and literature review. Int J Clin Exp Pathol 2009;2:300-02.
4. Scala WA, Fernandes AM, Duprat Ade C, Costa Ho. Granular cell tumour of larynx in children: A case report. Braz J Oto Rhinolaryngol Sep-Oct 2008;71(5):780-85.
5. Zagolski O, Gajda M, Zajechi K. Granular cell tumour of the larynx: Literature review and case report. Prezglek 2007; 69(9):598-600.
6. Arevalo C, Maly B, Eliashar R. Laryngeal granular cell tumour. J Voice 2008;22:339-42.
7. Gill Ryoung kim, Sun kon Kim, Young Myung Kim. A granular cell myoblastoma of the larynx: A case report. Yonsei Medical Journal 1965:6.