International Journal of Otorhinolaryngology and Head and Neck Surgery
Krishnappa BD et al. Int J Otorhinolaryngol Head Neck Surg. 2020 Jul;6(7):1380-1382
http://www.ijorl.com
pISSN 2454-5929 | eISSN 2454-5937

DOI: http://dx.doi.org/10.18203/issn.2454-5929.ijohns20202800

Case Report

Adenoid cystic carcinoma of arytenoid: a rare tumor at a rare site

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Received: 07 May 2020
Revised: 13 June 2020
Accepted: 15 June 2020

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ABSTRACT

Pedunculated primary adenoid cystic carcinoma of larynx is an uncommon form of malignant neoplasm. This case is an extremely rare entity and hence reported. Until today this type of carcinoma is not reported in medical literature. A 55 year old female patient came with 6 months history of dyspnoea and foreign body sensation in throat and occasional change of voice. Micro laryngeal surgical excision of the pedunculated polyp was done under general anaesthesia using diathermy cautery and specimen was sent for histopathological examination, perineural spread of the tumour is highlighted. The pedunculated polyp from the arytenoid looked like a benign lesion and histopathological examination showed the lesion to be adenoid cystic carcinoma.

Keywords: Pedunculated primary adenoid cystic carcinoma, Pedunculated polyp of arytenoid, Arytenoid

INTRODUCTION

Adenoid cystic carcinoma is found mainly in head and neck, but can occur in other places like uterus and accounts for 5% of all head and neck tumors.[1] Adenoid cystic carcinoma occurs commonly in salivary glands and accounts for 10-15% of salivary gland tumors, which consists of clusters of cells that secrets saliva, scattered throughout the upper aero digestive tract.[1,2] Regardless of where it starts antibody-dependent cellular cytotoxicity (ADCC) tends to spread along nerves or through blood stream.[3,4] Its lymph node metastasis is unusual about 5-10% of cases.[3] The cause of ADCC is unknown but may develop from non-inherited genetic changes. There is some evidence that the P53 tumour suppressor gene is somehow inactivated in advanced and aggressive forms of ADCC.[4]

The P53 gene limits cell growth by monitoring rate at which cell divides.[3,4] Histologically ADCC is classified as cylindroma, cribriform, solid forms and it commonly spreads to lungs.

Reporting a rare case at a rare site and microlaryngeal surgical excision done using diathermy cautery.

CASE REPORT

A 55 year old female reported with chief complaints of dyspnoea in lying down position foreign body sensation in throat, occasional change in voice for the past 6 months. Examination of the neck, oral cavity, and oropharynx revealed no abnormality. Indirect laryngoscopy examination revealed a polypoidal mass occupying interarytenoid space and posterior commissure of larynx. Haematological investigations were within normal limits. Oesophago-gastroduodenoscopy (OGD) was done and showed a polypoidal lesion originating from right arytenoid (Figure 1). CT scan of neck was done which revealed a well-defined hypodense cystic mass arising from right arytenoid.

Micro laryngeal examination showed a polypoidal mass with a stalk arising from the right arytenoid lying over interarytenoid space, which was excised using diathermy

cautery under general anaesthesia and specimen sent for histopathological examination (HPE). Difficult intubation was observed during induction of general anaesthesia and hence the patient is placed in head down position and displacing the tumour from the inter arytenoid space by anaesthetist.

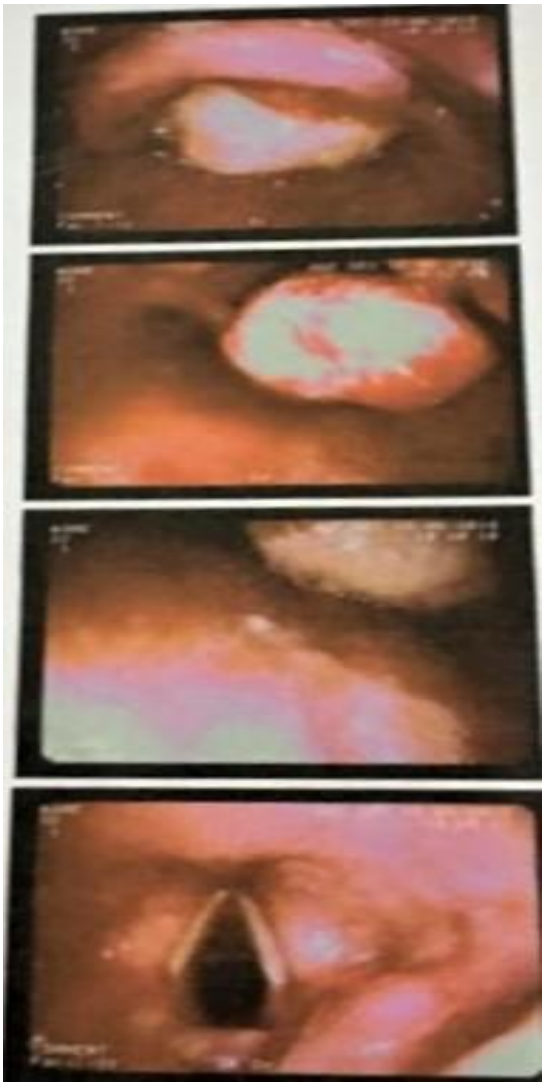

Figure 1: OGD picture showing polypoidal lesion originating from right arytenoid.

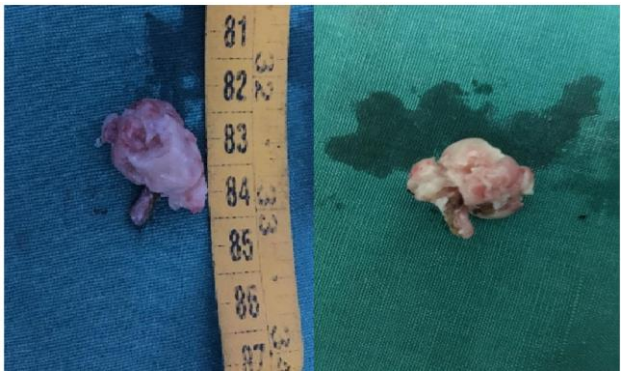

Figure 2: The excised mass with the stalk.

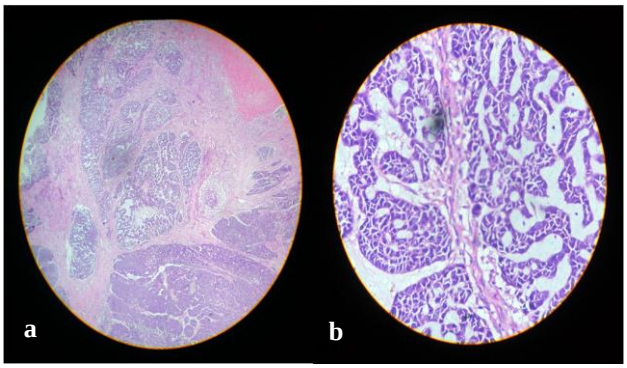

Figure 3: (a) Low power view showing the tumour infiltrating the stroma, (b) high power view showing malignant epithelial cells arranged in glandular and cribriform pattern.

HPE shows fragment of tissue lined by stratified squamous epithelium exhibiting areas of ulceration, neutrophilic exocytosis. The ulcer area is covered with necrotic inflammatory exudate. Stroma shows tumour cells arranged in diffuse sheets, glandular pattern and cribriform pattern, which are seen enclosing central lumen containing eosinophilic material. These cells show hyperchromatic nucleus and moderate eosinophilic cytoplasm. Focal perineural tumour infiltration is seen, features are suggestive of adenoid cystic carcinoma with perineural spread (Figure 3 a and b).

Clinical and radiological examination postoperatively was within in normal limits. The patient is being followed up till today and is still free of disease.

DISCUSSION

ADCC is an uncommon form of malignant neoplasm that arise with salivary glands, other sites of origin include the trachea, lacrimal glands, breast, skin and uvula. The peak incidence of neoplasm is between 5th and 6th decades of life with male to female ratio of 2:3. ADCC has a propensity of perineural invasion and for local recurrences of the tumour are well known. Lymphatic spread is very rare.[5] This reported case seen in a female and incidence is in the 5th decade of life. The reported case shows a pedunculated polypoidal mass arising from the right arytenoid and the surrounding region shows no abnormality on microscopic laryngeal examination. Microscopically the adenoid cystic carcinoma is composed of a mixture of myoepithelial cells and duct cells. Histopathologically, ADCC shows three patterns cribriform, tubular and solid variants. The cribriform pattern is the most common form characterised by islands of basiloid epithelial cells that contains cyst like spaces resembling swiss cheese. A better prognosis is attributed to tubular and cribriform histopathological subtypes than the trabecular and solid ones, which are correlated with early distant metastasis, early recurrence and higher mortality rate.[6]

The treatment aspect of the tumour is surgical excision. Radiation therapy is particularly effective for ADCC as an adjuvant therapy, by helping to eliminate any microscopic cancer cells.[7] Chemo therapy is generally not used for ADCC. In our case surgical excision with wide margin of the base of the tumour using microscope and diathermy cautery, as the main stay of treatment.

CONCLUSION

ADCC is a rare tumour and due to its low incidence, we may miss an early diagnosis and thus leads to delay in the treatment. ADCC has an indolent course and good prognosis.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Krishnappa BD, Akshay BK. Adenoid cystic carcinoma of arytenoid: a rare tumor at a rare site. Int J Otorhinolaryngol Head Neck Surg 2020;6:1380-2.