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ADENOID CYSTIC CARCINOMA OF NASAL CAVITY- A RARE CASE REPORT

Pathology

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ABSTRACT

Adenoid cystic carcinoma, is a rare tumor of epithelial cell origin, found mainly in the minor salivary glands. We present a case of a 36 year old female who presented to ENT OPD with a fleshy mass occupying the posterior part of right nasal cavity and displacing the nasal septum on the left side. HPE of the biopsied mass was reported as Adenoid Cystic Carcinoma (ACC) of nasal cavity.

KEYWORDS

Adenoid cystic carcinoma, nasal cavity, cribriform pattern

INTRODUCTION

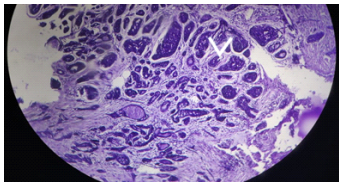
Adenoid cystic carcinoma, previously known as cylindroma, is a rare tumor of epithelial cell origin, comprising 1% of malignant tumors of the head and neck region [1,2] Approximately 50% of cases are found in the minor salivary glands ,in particular, the palatine glands. Among the major salivary glands, the parotid and submandibular glands are the most common locations. It is rarely seen in the nasal cavity, arising from pseudo stratified columnar respiratory epithelium, rather than the glandular tissue of salivary glands. It is characterized by high rates of local recurrence and tends to spread through bony destruction and perineural and perivascular invasion [3].

CASE REPORT

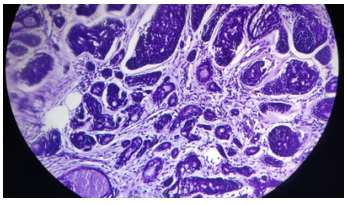
We present a case of a 36 year old female who presented to ENT OPD with complaints of right nasal obstruction for 3 years and moderate epistaxis for 4 months associated with foul smelling mucopurulent discharge. On clinical examination, a fleshy mass was seen occupying the posterior part of right nasal cavity and displacing the nasal septum on the left side. The mass was painful and soft. Physical exam via nasal endoscopy revealed unilateral nasal mass on right side, septal deviation, mucosal edema, and facial deformity of the right nasolabial fold.

CT scan revealed a mass occupying the right nasal cavity arising from the posterior part of the nasal cavity extending along the choanae till the anterior part of the sphenoid sinus to involve the right orbit. Biopsy was done and the mass was sent to us for histopathological examination. HPE revealed the mass as adenoid cystic carcinoma of nasal cavity.

Figures 1& 2 shows the cribriform arrangement of cells and gland like spaces filled with basophilic materials



Figure(1)10X



Figure(2) 40X

DISCUSSION

ACC is a relatively rare tumor of epithelial cell origin, most commonly arising from major or minor salivary glands and uncommonly in other areas of the head and neck region, notably in the nasal cavity. The peak incidence is from the fourth decade to the sixth decade, occurring slightly more in women [2]. It usually presents as a slowly growing, firm mass. Pain as a symptom occurs early in the course of the disease, likely due to the tumor's predilection for perineural invasion. Presence of lymphadenopathy is uncommon. Distant metastasis can occur, with the lung being the most common site [4] A study by Amit et al. found distant metastasis to occur in 29.1% of patients with ACC of the paranasal sinuses and skull base [5]. Extensive bony invasion may be present prior to any radiographic evidence of osseous destruction [6] It is commonly diagnosed late due to its insidious growth.

Grossly, it usually has a solid appearance and an infiltrative pattern of growth.

Microscopically, the typical adenoid cystic carcinoma has cribriform pattern:[7] nests and columns of cells arranged concentrically around glandlike spaces ('pseudocysts') filled with homogenous eosinophilic periodic acid-Schiff (PAS)- positive material or granular basophilic material.[8,9,10] Most of these are not true glandular spaces rather represent extracellular cavities containing reduplicated basal lamina material and mucin produced by the tumor cells. The perineural invasion is caused by the production of brain derived- neurotropic factor.

Some ACC may have a predominantly tubular, solid or sclerosing pattern of growth.

CONCLUSION

ACC of the nasal cavity as a rare pathological and clinical entity continues to pose diagnostic and therapeutic challenges. Despite its rarity, adenoid cystic carcinoma should be taken into consideration in the differential diagnosis of a nasal mass.

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