

CASE REPORT

TRANSITIONAL CELL CARCINOMA OF NASAL CAVITY: A RARE CASE REPORT

Kavish Jhawar¹, A. K. Jain², Ritu Nigam³, Manish Kumar Sachan⁴, Freni J. K.⁵

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ABSTRACT: Non-keratinizing carcinoma of the sinonasal cavity is a rare entity. There are very few reports concerning this type of malignancy Transitional cell carcinoma arise from the epithelial lining of the nasal cavity and paranasal sinuses as ectodermal in origin. The incidence of sinonasal malignancy is approximately 3.5 per 100000 populations per year¹ of this 15-20% are nonkeratinizing carcinoma. Male preponderance (male to female ratio is 3.3:1) typical presentation like unilateral nasal polyp tendency to recurs after removal. Etiology is unknown; sulphur, tobacco, infection and other occupational exposure have been associated.

KEYWORDS: Transitional cell carcinoma, Schneiderian carcinoma, Non keratinizing carcinoma, Respiratory epithelial carcinoma, Ringertz carcinoma, Cylindrical carcinoma.

CASE REPORT: A 55 years female presented with complaints of right nasal obstruction, right nasal watery discharge and epistaxis since one year, On local physical examination bulging of right lateral nasal wall, nasal septum is deviated to left side and a single pale mass with multiple finger like projections present in right nasal cavity which completely occludes the right nasal cavity. Probe can pass medially to mass but restricted on lateral side, mass was insensitive to touch and bleeds on touch; on posterior rhinoscopy no mass is seen. History of right nasal polypectomy 3 years back was present.

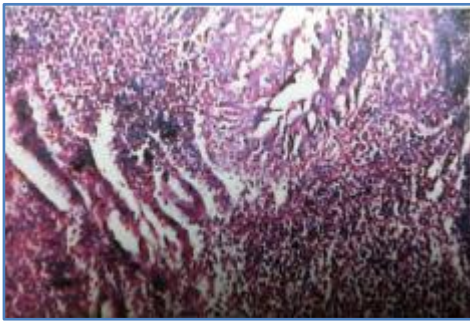
Computed tomography of nasopharynx and paranasal sinuses revealed soft tissue component with mild heterogeneity involving right maxillary antrum, osteomeatal unit, right nasal cavity and adjacent ethmoid air cells, mild expansion of right maxillary antrum with mild thinning of antral wall, blocked and widened right osteomeatal unit. D/D includes sinonasal polyp and neoplastic etiology.



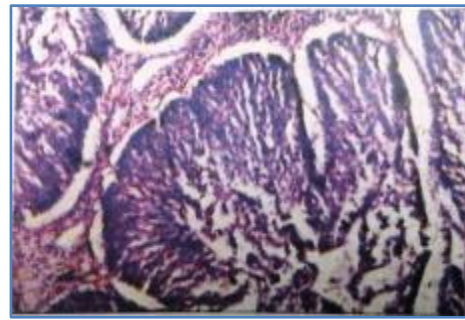
Histopathological examination shows papillary growth with multilayer and hyperplastic transitional epithelium infiltrating to surrounding stroma. Atypical transitional cells with

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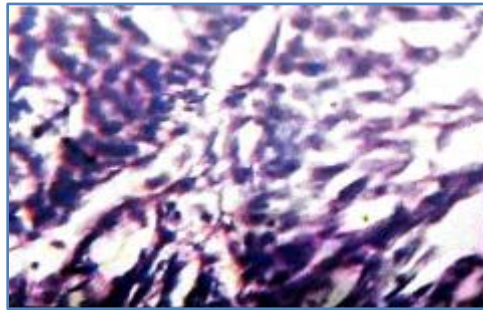
hyperchromatic nuclei with scanty amount of cytoplasm present. Infiltration of tumour cells deeper into stromal tissue surrounding inflammatory cells.



4X HPE



10X HPE



40X HPE

DISCUSSION: Non-keratinizing carcinoma of the sinonasal cavity is a rare malignancy of nose and paranasal sinuses. Malignant sinonasal tumours represents less than 1% of all cancers seen in humans and about 3% of all malignancies of the head and neck region.² Of this 15-20% are transitional cell carcinomas.³⁻⁵ According to the WHO classification, it has many synonyms including Schneiderian carcinoma, transitional cell carcinoma, cylindrical cell carcinoma, Ringertz carcinoma and respiratory epithelial carcinoma.⁶

Grossly, the tumours grow in most cases as exophytic masses showing either a corrugated or a smooth surface. They may arise from the Maxillary antrum, the lateral nasal wall, the ethmoid or the maxillary antrum being the most frequent site.^{3,7}

Microscopically, The tumour cells are commonly cylindrical and have a tendency to form palisade arrangements perpendicular to the underlying basement membrane. The WHO classification lists non-keratinizing carcinoma as a variant of squamous cell carcinoma. It is described as a tumour of sinonasal tract characterized by a plexiform or ribbon like growth pattern with occasional mucous containing cells.⁶

The ribbon-like invasive architecture and monomorphic nuclear cytology of non-keratinizing carcinoma may mimic inverted papilloma. Thus, Osborn called inverted papillomas as transitional papillomas and sinonasal non-keratinizing carcinoma as transitional carcinomas.³

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However, the focal keratin pearl formation, increased mitotic activity and nuclear pleomorphism distinguish the nonkeratinizing carcinoma.⁸ Hallmark of transitional cell carcinoma are nuclear pleomorphism, increase mitotic figure and necrosis.

The many different terminologies and synonyms that have been used frequently in the international literature may have lead to some confusion and perhaps misdocumentation of this rare tumor.

Management is surgical resection, radiotherapy and chemotherapy but surgery is preferred modality with or without radiotherapy and chemotherapy. Surgical modalities available include Medial maxillectomy via lateral rhinotomy, Intranasal ethmoidectomy, Ethmoidectomy through caldwell luc apporoach, Endoscopic assisted removal of tumour.

REFERENCES:

1. Muir CS, Nectoux J. Descriptive epidemiology of malignant neoplasms of nose, nasal cavities, middle ear and accessory sinuses. *Clin Otolaryngol Allied Sci.* 1980 Jun; 5 (3): 195-211.
2. Majumdar B, Kent S. Malignant neoplasms of the nose and paranasal sinuses. A survey of cases treated in a regional centre. *Clin Otolaryngol*,1983; 8: 97-102.
3. Osborn DA. Nature and behaviour of transitional tumors of the upper respiratory tract. *Cancer.* 1970 Jan; 25 (1): 50-60.
4. Robin P, Powell DJ, Stansbie JM. Carcinoma of the nasal cavity and paranasal sinuses: incidence and presentation of different histologic types. *Clin Otolaryngol Allied Sci.* 1979 Dec; 4(6): 431-56.
5. El-Mofty S, Lu DW. Prevalence of high-risk human papilloma virus DNA in non-keratinizing (cylindrical cell) carcinoma of the sinonasal tract. *Am J Surg Pathol.* 2005 Oct; 29 (10): 1367-72.
6. Pilch BZ, Bouquot J, Thompson LDR. Squamous cell carcinoma. In: Barnes L, Eveson JW, Reichart P, Sidransky D, editors. *World Health Organization classification of tumors. Pathology and genetics of head and neck tumors.* Lyon: IARC Press; 2005. p. 15-7.
7. Osborn DA. Transitional cell growths of the upper respiratory tract. *J Laryngol Otol*; 1956: 70: 574-587.
8. Zarbo RJ, Torres FX, Gomez J. Nasal cavity and paranasal sinuses: embryology, anatomy, histology and pathology. In: Pilch BZ, editor. *Head and Neck Surgical Pathology.* Philadelphia: Lippincott Williams & Wilkins ; 2000.p.80-156.

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AUTHORS:

1. Kavish Jhawar
2. A. K. Jain
3. Ritu Nigam
4. Manish Kumar Sachan
5. Freni J. K.

PARTICULARS OF CONTRIBUTORS:

1. 2nd Year Post Graduate Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, Madhya Pradesh.
2. Professor and HOD, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, Madhya Pradesh.
3. Assistant Professor, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, Madhya Pradesh.
4. 3rd Year Post Graduate Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, Madhya Pradesh.

5. 2nd Year Post Graduate Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, Madhya Pradesh.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Kavish Jhawar,
#117, Vijiya Nagar,
Near Chetakpuri Petrol Pump,
Lashkar, Gwalior.
Email: dr.kavishjhawar@gmail.com

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