



TRANSITIONAL CELL CARCINOMA OF THE NASAL CAVITY: A CASE REPORT.

Oncology

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ABSTRACT

INTRODUCTION- Malignant sinonasal carcinoma are a rare entity comprising <1% of all cancers and around 3% of all Head and Neck malignancies in human. Among these 15-20% are transitional cell carcinoma also known as non-keratinizing carcinoma of sinonasal tract.

AIM - An overview of diagnosis and management of transitional cell carcinoma of nasal cavity.

MATERIALS AND METHODS - A 46 years old male presented with on and off bleeding from left nostril for 7 months, progressive left nasal obstruction for 5 months and headache for 3 months in the ENT OPD. He was examined, investigated and diagnosed to be a case of transitional cell carcinoma of left nostril. He was referred to Dept. of Radiation oncology for further management as the patient did not give consent for surgery.

RESULTS- The patient has undergone conventional radiation therapy at a dose of 2 Gray per fraction (#) for a total of 30 # and dose of 60 Gray. The patient is now symptomatically better.

CONCLUSION- Non keratinizing squamous cell carcinoma is a very rare entity. Only few cases have been reported previously as it has many symptoms like cylindrical cell carcinoma, Schneiderian carcinoma, Ringertz carcinoma. In most reported cases, it is not associated with any risk factors and present as progressive nasal obstruction. Management is surgical resection followed by Radiation therapy or Concurrent Chemoradiation.

KEYWORDS

Transitional cell carcinoma, radiotherapy.

INTRODUCTION-

Malignant sinonasal carcinomas are a rare entity comprising <1% of all cancers and around 3% of all head and neck cancers¹. Of these 15-20% are transitional cell carcinoma.^{2,4} Transitional cell carcinoma is a type of Non keratinizing carcinoma (NKC). According to WHO NKC has many synonyms like Schneiderian carcinoma, cylindrical cell carcinoma, Ringertz carcinoma⁵.

CASE REPORT-

Mr Agusta Lagasu, a 37 years old male presented to ENT OPD, with complaints of on and off bleeding from left nostril for last 7 months, nasal blockage of both (L>R) nostril for 5 months and headache for 3 months. On local physical examination bulging of left lateral nasal wall, nasal septum is deviated to right side and a single pale mass present in left nasal cavity which completely occludes the left nasal cavity. The mass was insensitive to touch and bleeds on touch. CECT of nasopharynx and paranasal sinuses reveal soft tissue attenuation in posterior nasal cavity extending upto the choana and mucosal thickening in B/L maxillary and ethmoid sinus. Differential diagnosis included sinonasal polyp.

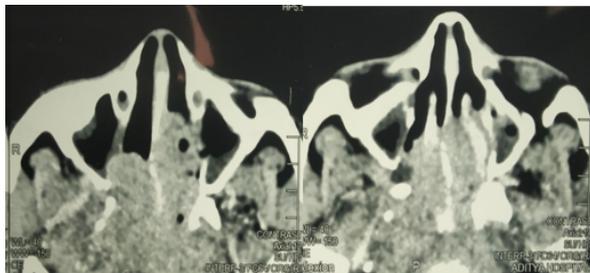


FIG 1: CT Nasopharynx and Paranasal sinus images of the patient

Histopathological examination shows papillary pattern. The tumor cells are oval to spindle shaped resembling transitional cells and showing mild to moderate degree of nuclear pleomorphism.

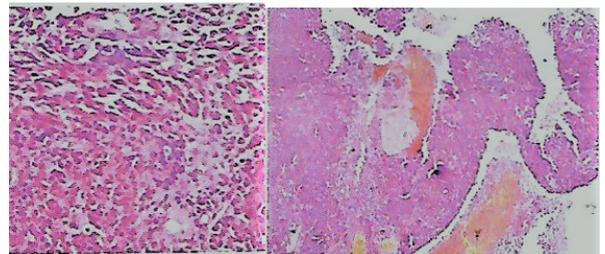


FIG 2: Slides showing HPE of the patient tumour tissue

On the basis of HPE and CECT, the patient was diagnosed to be a case of Transitional Cell Carcinoma.

He was referred to Dept. of Radiation oncology for further management. The patient is cT2N0M0 according to AJCC 8 edition and he was on stage II. As the patient did not give consent for surgery, he has undergone conventional radiation therapy with 2 Gray per # for a total of 30 # and dose of 60 Gray. He was treated with Cobalt 60 Bhabatron -II machine with a field size of 8cm x 10cm, SSD with depth of 4 cm. The superior border was taken left zygomatic arch, medially to contralateral inner canthus, inferiorly upper lip, laterally left gingivo-buccal sulcus, posteriorly extended to include Retropharyngeal lymph node. Anterior wedge of 15° and lateral wedge of 60° was used. The patient is symptomatically better and came for follow up after 6 weeks and then after 3 months.

DISCUSSION-

Sinonasal carcinoma are strongly associated with environmental factors like tobacco, alcohol, occupational exposure (eg-nickel, chromium), workers in leather, textile and wood industries.⁵ Sinonasal tract malignancies most commonly affect maxillary sinus (about 60%) f/b nasal cavity (about 22%), ethmoid sinus (about 15%) and frontal and sphenoid sinus (about 3%)⁵. In this case association with tobacco was found. A strong relationship between NKC and HPV has been suggested by some recent studies⁶. Many of these tumours show immune-reactivity with p16. Grossly, the tumors

grow in most cases appear as exophytic masses showing either a corrugated or a smooth surface. They may arise from the lateral nasal wall, the ethmoid or the maxillary antrum being the most frequent site.⁴ Here there is mucosal thickening of maxillary and ethmoid sinus. Microscopically, the tumor cells are commonly cylindrical and have a tendency to form palisade arrangements perpendicular to the underlying basement membrane. It is described as a tumor of sinonasal tract characterized by a plexiform or ribbon like growth pattern with occasional mucous containing cells.⁵ 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.⁶ However, the focal keratin pearl formation, increased mitotic activity and nuclear pleomorphism distinguish the non-keratinizing carcinoma.⁷ 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 resulted in some confusion and perhaps improper documentation of this rare tumor.

CONCLUSION-

Transitional cell carcinoma is a rare entity. Although at this stage of the disease the management is surgical resection followed by radiation therapy, but here the patient has undergone conventional radiation therapy alone. Hence we can suggest that radiation therapy alone is seen to be equally efficient in reducing the clinical symptoms of patients who have not undergone surgery. However the patient requires further follow up to comment on its effectiveness with respect to disease free or progression free status of the patient on long term basis.

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