Sinonasal carcinoid: A case report

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Abstract

Carcinoid tumors of the sinonasal tract are rare. Due to their rarity, the clinical and pathologic characteristics of these neoplasms are not adequately understood. We were reporting one such case. **Case presentation:** A 28-year-old lady presented with a nasal mass and epistaxis. A mass inside nasal cavity was found by diagnostic nasal endoscopy was done and biopsy was taken from the mass. Histopathological report revealed as carcinoid tumor and successfully treated by chemo radiation. **Conclusion**: Sinonasal carcinoid inside nasal cavity is a very rare entity and the clino-pathological profile of this disease is very poorly understood. This case achieved complete response following chemo radiation. We should keep in mind that these rare tumours may involve the nasal cavity also and more documentation of these tumours will help us to standardize the treatment protocol in such a rare tumour in rare location.

Key words: Carcinoid tumour, Nasal cavity, Neuroendocrine carcinoma, Paranasal sinuses, Sinonasal tumor

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Introduction

Malignant neoplasms of the paranasal sinuses and nasal cavity are relatively rare, comprising only 3% of all head and neck malignancies [1]. These include both primary sinonasal carcinoma[2] as well as metastatic deposits. Epithelial cells (or at least their progenitors) in virtually every organ have the ability to exhibit neuroendocrine differentiation[3]. Carcinoid tumours in the head neck region are very rare and its biological behaviour is also poorly understood.

Case report

A 28-year–old lady presented to casualty with bleeding per right nostril, associated with bilateral nasal obstruction and hyponasal voice for 1 month. She had no

history of flushing, wheeze, diarrhoea or tobacco use. There was no proptosis and vision was normal. Epistaxis was controlled conservatively. Computed tomography scan revealed a large soft tissue mass involving the right nasal cavity and orbit, pushing the nasal septum to the opposite side.

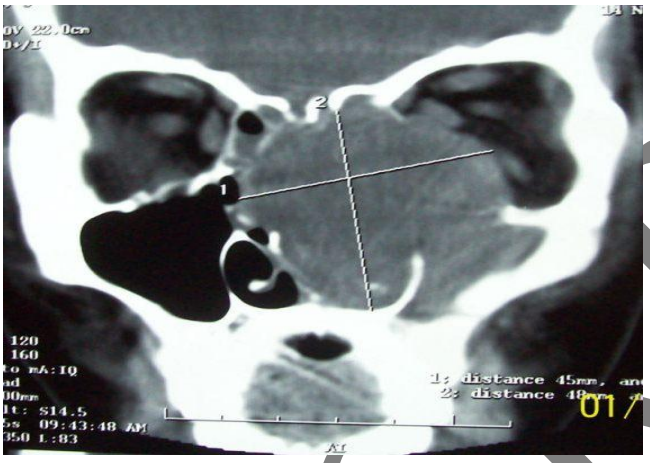

Figure 1: CT Scan of PNS (coronal view) showing large soft tissue mass involving the right nasal cavity, orbit, and pussing the nasal septum to opposite side

A diagnostic nasal endoscopy and biopsy was performed and histopathological examination revealed tumor mass composed of closely packed tumor cells arranged in organoid pattern. The tumor cells were uniform and polygonal with round nuclei, granular chromatin, inconspicuous nucleoli and moderate amounts of eosinophilic cytoplasm.

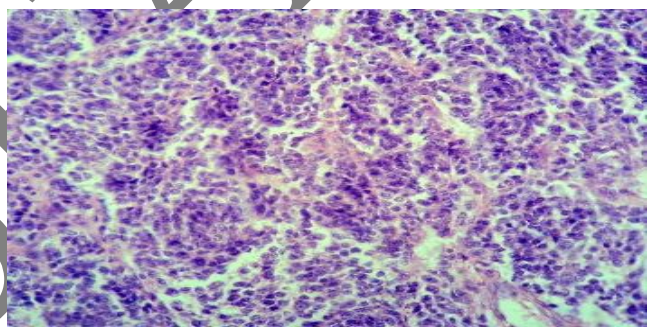

Figure 2: Photomicrography showing tumour cells having moderate amount of eosinophilic cytoplasm and finely granular nuclear chromatin grow in an organoid nesting arrangement, with a fine vascular stroma (400X)

The tumor mass was interspersed with delicate fibrovascular septae with evidence of hyalinization in the stroma. Immuno-histochemistry showed strong cytoplasmic chromogranin staining and strong membranous staining for CD56.

She was treated with 4 cycles of doxorubicin-based chemotherapy (VAC

regimen consisting of Vincristine, Doxorubicin, Cyclophosphamide) followed by local external beam radiation at a total dose of 60 Grey in 30 fractions over 6 weeks at conventional fractionation. She achieved radiologically-proven complete response and was followed up monthly, remaining relapse-free to date and maintaining normal daily activities.

Discussion

Primary neuroendocrine carcinomas of the sinonasal tract are rare and represent a histological spectrum of differentiation.[4,5] The majority of neuroendocrine carcinomas in the head and neck region arise in the larynx and constitute the second most common malignancy after squamous carcinomas.[6]

The treatment of laryngeal neuroendocrine carcinoma is generally based on tumor differentiation status where well- and moderately- differentiated tumors are treated surgically and poorly-differentiated tumors are managed by radiation and/or chemotherapy.[6-9] Because of their infrequency and overlapping pathologic features with other entities, studies investigating the effect of differentiation status on clinical behavior and management of patients with these tumors remain unaddressed.[10]

The treatment of carcinoid tumor has not been systematically evaluated because of very low incidence of the disease. Although treatment generally involves surgical removal of the tumor, this is not always possible in the head and neck area due to its complex anatomy, and surgery is commonly combined with radiation or chemotherapy or both

Conclusion

Sinonasal carcinoid inside nasal cavity is a very rare entity and the clinicopathological profile of this disease is very poorly understood. This case achieved complete response following chemoradiation. We should keep in mind that these rare tumours may involve the nasal cavity also and more documentation of these tumours will help us to standardize the treatment protocol in such a rare tumour in rare location.

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