

CASF REPORT

Ethmoid sinus carcinoma

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ABSTRACT

Malignancies involving the paranasal sinus are usually rare and cases of ethmoid sinus carcinoma are very uncommon. In this category squamous cell carcinoma is the most common malignancy seen, poor survival rate has been associated with these cases because most of them present in their advance stages as in these seen cases the symptoms may be nonspecific and remain indolent for months or years, leading to delay in diagnosis and consequently present as at advanced diseased stage. Hence, it is important that the clinicians should be aware of the sinus pathologies, to diagnose these malignancies at an early stage. Here we report a case of squamous cell carcinoma originating from ethmoid sinus extending into bilateral nasal cavities, orbits, and maxillary sinuses.

Key words: ethmoid sinus, squamous cell carcinoma, paranasal sinus, rare, prognosis.

INTRODUCTION

Tumors of the nasal cavity proper can be divided into two groups mainly the benign and malignant neoplasm. In this category of nasal cavity tumours the inverting papilloma and squamous cell carcinoma predominates in the benign and malignant group respectively. Usually the sinus tumours present as malignant in nature, and the most prevalent among these is the squamous cell carcinoma. The maxillary sinus is most commonly involved site, followed by the nasal cavity, the ethmoids, and the frontal and sphenoid sinuses. 0.2-0.8% of all malignant neoplasms accounts for carcinomas of the nasal cavity and paranasal sinuses and 3% of those are seen in the head and neck region.¹ Over 80% of all malignancies that arise in the nasal cavity and paranasal sinuses is constituted by Squamous cell carcinoma (SCCA) and around 70% of these occurs in the maxillary sinus, 12% in the nasal cavity, and the rest involves the nasal vestibule and remaining sinuses.²

Ethmoid sinus carcinoma is very uncommon accounting for approximately one-third of paranasal sinus cancers.^{3,4,5} There is limited clinical experience and reports based on this disease. We herein report a case of squamous cell carcinoma originating from ethmoid sinus extending into bilateral nasal cavities, orbits, and maxillary sinuses.

CASE REPORT

A 70-year-old female patient reported to our clinic with complains of pain and swelling on left orbital and nasal region (Fig. 1). She had difficulty with vision of her left eye and also had nasal discharge. Clinical examination revealed a moderately firm ul-

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ceroproliferative growth measuring around 4 × 4 cm in maximum diameter in relation to left orbital and nasal region. Mesiodistally extending from medial canthus of right eye to lateral canthus of left eye. There was mild tenderness on palpation but no lymph nodes were palpable. The extent of tumor spread was assessed by physical examinations and plain sinus X-rays.



Figure 1, Clinical photograph at presentation.

Computerized tomography (CT) was also taken, the CT revealed the lesion was involving the ethmoid, sphenoid and maxillary sinus, with epicentre appearing to be the left ethmoid sinus, the lesion also extended into the orbital cavity also there was erosion and bulging of nasal septum (Fig. 2).

DISCUSSION

Tumours are considered to have originated from the ethmoid sinus when the epicentre or the main tumor mass is located in the ethmoid cells. In majority of patients, such tumours are diagnosed in late and advanced stages, which makes it difficult to deter-



Figure 2, Axial CT scan showing the extent of the lesion.

mine the origin of the neoplasm. The reasons for the poor prognosis in these tumours are attributed to their close anatomic proximity to vital structures, complete surgical resection in these areas make it a difficult and challenging task. Another reason is that most of these tumours exhibit clinical signs and symptoms only after extensive local invasion.

The disease has more predilections to males (male/female ratio 2.3/1), usually seen in the age group ranging between 38–89 years (mean 64 years).⁶ The diagnosis of the disease is usually done in the advanced stage, with as much as 90% of the patients presenting T3/T4 stages.⁷

The most common symptoms are pain (59%), followed by oral symptoms (40%), and facial swelling (38%). Nasal obstruction (35%) and epistaxis (25%) may also be seen.⁸

The tendency of ethmoid sinus cancers to spread insidiously to an advanced stage before causing symptoms and signs leading to their diagnosis has been recognized. However, despite extensive local growth, these tumors have a low propensity for lymphatic or haematogenous dissemination.^{9,10,11,12}

There are five histological variants to this disease described in literature. Although the biologic behaviour does not appear to differ among the histologic variants, the different histological types of the tumor identified are undifferentiated carcinoma, squamous cell carcinoma, adenocarcinoma, adenoid cystic carcinoma and transitional cell.

Therapeutic approaches include surgery, radiation and systemic and topical chemotherapy in a variety of combinations and sequences.⁶

CONCLUSION

Most cases of ethmoid sinus cancers are diagnosed in locally advanced stages. Local tumor progression

remains the main pattern of failure. The most preferred treatment is surgery and postoperative radiotherapy. Because of tumour extent and proximity to critical structures, resection with wide margins is rarely feasible. Definitive radiotherapy is an alternate option for patients having high risk for anaesthesia or those declining surgery. So careful diagnosis of tumour and identifying the appropriate treatment options is essential for the survival of the patient.

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