Oncocytoma of Maxillary Sinus- a rare presentation

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ABSTRACT

A case of Oncocytoma of maxillary sinus in a 73 years old female is reported along with a brief review of literature. To the best of our knowledge this extremely rare tumor is the first of its kind reported in Nepal. Literature review has revealed only four such cases originating from maxillary sinus.

Keywords: Oncocytoma, oxyphil cell adenoma, maxillary sinus.

INTRODUCTION

Oncocytoma, also known as Oxyphil cell adenoma is said to occur almost exclusively within the parotid gland which accounts for less than 1.0% of all salivary gland neoplasms.[1-4] It is a rare epithelial tumor, usually benign originating from the striated duct cells (oncocytes).[3-7] They are also found in pancreas, respiratory tract, thyroid, pituitary, parathyroid, adrenal glands and kidney. The gender distribution is almost equal. Even though few cases of nasal cavity oncocytomas have been reported in literature, its occurrence in maxillary sinus is extremely rare. To the best of our knowledge, this is the first case reported in Nepal. The malignant variants of oncocytomas are exceedingly rare.

CASE REPORT

A 73 years old female was admitted with a chief complaint of swelling of her right cheek for last 7 months. It was insidious in onset, gradually progressive and was associated with mild pain and discomfort. There was also history of epiphora from her right eye. There was no history of nasal obstruction, epistaxis, trismus, neurological or visual disturbances or proptosis. Past history was not significant. She was a smoker.

On examination, her general condition was fair. There was no lymph node enlargement. Her respiratory, cardiovascular as well as abdomenopelvic examinations were within normal limits. On local examination there was a smooth & diffuse swelling measuring approximately 4cm x 5 cm over her right cheek which was firm and tender. Anterior rhinoscopic examination revealed a small fleshy mass present in her right middle meatus. The mass was insensitive to touch and was not friable.

Her baseline investigations were all within normal limits. X-ray Para Nasal Sinus – Occipitomental view revealed homogenous opacity of her right maxillary antrum with expansion of all its walls. CT-Scan of nose and paranasal sinuses (3mm axial and coronal cuts) showed a well encapsulated heterogenous mass occupying the right nasal cavity and maxillary antrum with partial bony destruction of the floor, roof and medial walls. The mass was also extending to the anterior ethmoidal sinus of the same side. The nasal septum was pushed to the opposite side (Fig: 1).

Biopsy was done under local anesthesia. Tissue samples were taken from the right middle meatus and also from maxillary antrum which was reported as oncocytoma.

With the provisional diagnosis of oncocytoma, the case was taken up for surgery under general anesthesia. The entire mass was excised by lateral rhinotomy approach. On exposing the antrum, a fleshy and fatty mass was found to be occupying the antrum extending towards the middle meatus and anterior ethmoids. All the walls of the maxillary antrum as well as lamina papyracea were eroded partially. The mass was excised in toto. Specimen 1 was the mass excised from the antrum and the specimen 2 was the mass removed from the anterior ethmoids. Both the masses were sent for histopathological examination. Following surgery bilateral anterior nasal packing was done which was removed after 48 hrs. The patient had an uneventful postoperative recovery.

Histopathological examination of the excised mass showed grossly multiple pieces of gray white and gray brown tissues. Microscopic examination of both the specimens consisted of solid and trabecular growth patterns of oncocytic tumor cells with mild nuclear atypia. The tumor cells had abundant eosinophilic granular cytoplasm and granular nuclear chromatin. The features were suggestive of oncocytoma.

DISCUSSION

Oncocytoma is most commonly seen in the older age group (60-70 years) and is found rarely in persons less than 50 yrs of age. It presents as a painless slow growing lump and arises from the striated duct cells. The malignant counterpart of this tumor is rare.[6-9]

Patients with oncocytomas of nasal cavities usually present with epistaxis, nasal obstruction and rhinorrhoea.[4,6,8,9] The nasal cavity oncocytomas may arise from any where in the nasal cavity ranging from the nasal septum to the lateral nasal wall.[4,9] Very few cases of this pathology arising from maxillary sinus has been reported and hence the exact site of origin within the maxillary antrum has not been ascertained.

Gross examination of oncocytomas reveal a smooth, firm and rubbery mass. Microscopically these tumors are composed of brown, plump, granular eosinophilic cells with small, indented nuclei. Similar picture was found in our patient's specimen also. Electron microscopy reveals excessive number of mitochondria filled cytoplasm as the characteristic of oncocytoma.[7,10]

Oncocytoma originating from minor salivary glands tend to grow in an irregular and locally invasive pattern.[10] Although histologically benign, they have destructive potential and are aggressive tumors with a high rate of regional metastasis.[8,9] These tumors show a prediliction for technetium Tc 99m and appear as hot spots on radio-nucleotide scan. Oncocytomas are commonly found in the superficial lobe of the parotid gland and superficial parotidectomy with facial nerve preservation is the treatment of choice. Surgical excision is the mainstay in the treatment of this condition. Malignant variety of this condition though extremely rare, requires excision of the tumour followed by postoperative radiotherapy.[7, 8] To conclude, oncocytoma involving nasal cavity is a rare entity by itself and its origin from the maxillary sinus is even rare.

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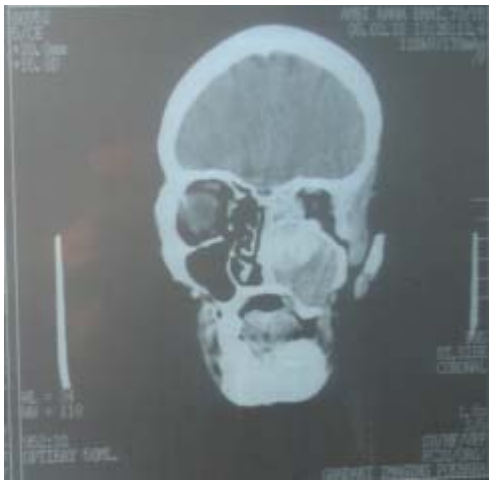

Fig. 1. CT Scan of Nose and PNS showing encapsulated heterogenous mass in Rt maxillary antrum with bony destruction