LEIOMYOSARCOMA OF THE NASAL CAVITY

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Leiomyosarcoma of nose and paranasal sinuses is very rare. In this case report, 48 years old lady with a huge nasal mass protruding from left nasal cavity has been presented. Clinical presentation, pathology and treatment are discussed.

Key words: leiomyosarcoma, nose and paranasal sinuses.

INTRODUCTION:

Leiomyosarcoma is a malignant neoplasm arising from smooth muscle. Smooth muscle is present everywhere in our body. However, leiomyosarcoma accounts approximately only 7 % of all soft tissue sarcomas and occurs most frequently in the gastrointestinal tract and uterus.[1] Only 3% of them arise in the head and neck.[2] Leiomyosarcoma of nose and paranasal sinuses is very rare. When they occur in the sinonasal tract, the most common sites are the nasal cavity, the maxillary sinus, and the ethmoid sinus, in decreasing order.[2] A case of this kind of malignancy of the nasal cavity who presented with a huge nasal mass protruding from left nasal cavity has been presented. Clinical presentation, pathology and treatment are discussed. This is the first case of leiomyosarcoma of nasal cavity reported in our country so far.

CASE REPORT:

A 48 year old farmer lady from Midwestern part of Nepal presented to the ENT OPD of Tribhuvan University Teaching Hospital, Maharajgunj, Nepal with complaints of left sided progressive nasal obstruction, nasal mass in the left nasal cavity and blood tinged nasal discharge for last 2 month. On examination, there was a reddish black mass protruding from the left nasal cavity with obliteration of the left nasolabial fold (fig.1). There was gross DNS on the right side and on posterior rhinoscopy bilateral choanae were free. There was no palpable neck node. Contrast enhanced CTScan showed mildly enhancing soft tissue density expansile mass lesion with areas of necrosis and early bony erosion in the left nasal cavity (fig.2).

Fig. 1 Huge nasal mass protruding from left nasal cavity

Fig. 2 Patient on 6th postoperative day

Three months prior to presentation in our hospital she had undergone excision of the nasal mass in a Zonal hospital. She had history of progressive nasal obstruction on the left side and minimal nasal bleeding for 1 year. The histopathological examination (HPE) reported squamous cell papilloma. For about 1 month she was symptom free but for last 2 months her nasal synptoms increased rapidly. She underwent wide excision of the nasal mass via lateral rhinotomy approach in our hospital. The mass was attached to the left nasal vestibule, inferior and middle turbinates and adjacent part of septum. The HPE of this mass revealed intersecting fascicles of spindle shaped cells showing moderate degree of pleomorphism and containing scanty to moderate amount of cytoplasm with cigar shaped to atypical lobulated nuclei and abundant mitosis and multiple areas of necrosis, consistent with leiomyosarcoma (fig. 3).

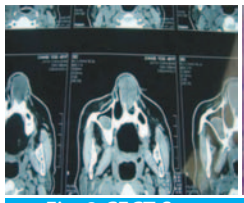

Fig. 3 CECT Scan showing expansile mass in the nasal cavity

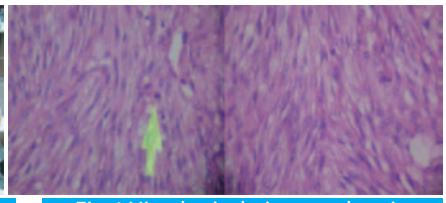

Fig.4 Histological pictures showing spindle shaped cells with cigar shaped nuclei and numerous mitosis

DISCUSSION:

As mentioned earlier leiomyosarcoma of nose and paranasal sinuses is very rare. The first case of leiomyosarcoma of nasal cavity and paranasal sinuses was reported in 1958.[3] Leiomyosarcomas of the sinonasal tract are more common in men than in women.[4] The average age at diagnosis is 50 years.[5] Initial symptoms in order of decreasing frequency include nasal obstruction, epistaxis, facial pain, and facial swelling. Sinonasal tract leiomyosarcoma is characterized as rapidly spreading and locally aggressive but rare regional lymph node involvement and metastatic potential. However, there are some reports of sinonasal leiomyosarcoma with cervical neck node metastasis.[6,7] Our patient presented with progressive nasal obstruction, nasal mass in the left nasal cavity and blood tinged nasal discharge for last 2 months. She had no palpable neck node. On histological examination, the tumor is made up of interlacing fascicles of spindle-shaped cells that have elongated, blunt-ended nuclei and eosinophilic cytoplasm. Numerous mitotic figures are present. The

cytoplasm of the tumor cells stains red in Masson's trichrome medium.[7] Our patient's postoperative histopathological report was more or less similar to this picture. Immunohistochemical test should be done to differentiate this tumour from other spindle cell tumours but test is not available in our setting. On CTScan, leiomyosarcomas appear as bulky masses, and they are frequently associated with extensive destruction of bone.[3] Contrast enhanced CTScan of our patient showed mildly enhancing soft tissue density expansile mass lesion with areas of necrosis and early bony erosion in the left nasal cavity. Wide excision is the treatment of choice. Regular follow up is necessary due to its high rate of recurrence. However, in some centers surgical excision has been combined with radiotherapy and chemotherapy. Our patient underwent wide excision of the tumour and on the basis of HPE postoperative chemoradiation was planned but missed the follow up though regular follow up is also mandatory.

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REFERENCES:

1. Lippert BM, Godbersen GS, Lüttges J, Werner JA. Leiomyosarcoma of the nasal cavity. Case report and literature review. ORL J Otorhinolaryngol Relat Spec. 1996 Mar-Apr;58(2):115-20.
2. Prasad KC, Alva TB, Khadilkar U, Madhu D. Leiomyosarcoma of the maxillary sinuses: report of two cases. Ear Nose Throat J. 2004 Feb;83(2):122, 124, 126-7.
3. Dropkin LR, Tang CK, Williams JR. Leiomyosarcoma of the nasal cavity and paranasal sinuses. Ann Otol Rhinol Laryngol. 1976 May-Jun;85(3 pt 1):399-403.
4. Carran RL, Myers EN. Neoplasms of the nose and paranasal sinuses. In: Bailey BJ, ed. Head and Neck Surgery: Otolaryngology. 2nd ed. Vol. 2. Philadelphia: Lippincott-Raven, 1998:1450.
5. Rice DH, Stanley RB. Surgical therapy of tumors of the nasal cavity, ethmoid sinus and maxillary sinus. In: Thawley SE, Panje WR, eds. Comprehensive Management of Head and Neck Tumors. 2nd ed. Vol. 1. Philadelphia: W.B. Saunders, 1999:571.
6. Sumida T, Hamakawa H, Otsuka K, Tanioka H. Leiomyosarcoma of the maxillary sinus with cervical lymph node metastasis. J Oral Maxillofac Surg 2001;59:568-71.
7. Izumi K, Maeda T, Cheng J, Saku T. Primary leiomyosarcoma of the maxilla with regional lymph node metastasis. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 1995;80:310-19.