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Ectopic Sinonasal Meningioma -A Case Report

KEYWORDS: Sinonasal, meningioma

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ABSTRACT *Meningiomas are relatively common intracranial neoplasms, but they are rarely seen in extracranial locations. Sinonasal tract meningiomas are uncommonlesions. The clinical and radiographic features ofthese tumors are nonspecific. We are presenting a case of such a rare tumor in a female patient with orbital and intracranial extension.*

INTRODUCTION:
Meningiomas are relatively common intracranial tumors in adults.However, primary extracranial(ectopic, extracalvarial) meningiomas of the nasal cavity, paranasal sinuses and nasopharynx are rare[1].These tumors are frequently misclassified, resulting ininappropriate clinical management. Therefore, extracranial sinonasal tract meningiomas are needed to be considered in the differential diagnosis of sinonasaltumors.

Case report:
A 37 years old female patient presented with complaints of headache, dizziness, pressure in eyes, off and on nasal blockage for the last 3 years with single recent episode of epistaxis. Otherwise her medical history was unremarkable. General, ocular and neurological examinations and routine laboratory tests were unremarkable. On nasal examination , there was polypoidal soft tissue mass in left nasal cavity. Non contrast CTscan [Figure 1] reveals sinonasal soft tissue tumor in left ethmoid sinus and nasal fossa with destruction of nasal septum and turbinates with orbital extension. Contrast enhanced MRI[Figure 2] showed T1 isointense and T2 hyperintense mass in left ethmoid sinus and nasal cavity with avid post-contrast enhancement. The lesion was extending in left frontal sinus and medialpart of left orbit with bony erosions. There was focal extradural intracranial component through deficient superior wall of ethmoid sinus.

The patient underwent left cranio-facial resection. During the operation, firm soft tissue mass was resected from ethmoid sinus and nasal cavity.

On histopathological examination, the mass was found to be fibrous meningioma. Post-operatively patient was kept on IV fluids, antibiotics and supportive care and was discharged in a stable condition.

Discussion:
Meningiomas are relatively common tumors accounting for 14-20 % of intracranial neoplasms , with higher incidence in Asians and Africans[2] .A meningioma outside the central nervous system is considered to be ectopic, also called as extracranial meningiomas and account for less than 2% [3]. They can be primary or secondary types, based on the absence or presence of intracranial component respectively. Primary extracranial meningiomas(ectopic meningiomas) arise ectopically from embryonal arachnoid rests that were pinched off and left behind or misplaced in intraosseous locations during the embryonic developmental stage. Of these about 11.5% encountered in paranasal sinuses and nasal cavity [4].

The sinonasal tract meningiomas are extremely rare and radiological differential diagnosis includes a variety of benign and malignant neoplasms,including epithelial tumors (carcinoma), neurogenictumors (melanoma and olfactory neuroblastoma),vascular tumors (angiofibroma, paraganglioma), andmesenchymal tissue tumors (aggressive ossifying fibroma) [5]. Currently, complete surgical resection of the tumor is the treatment of choice and there is no need for adjuvant treatment. However due to complex anatomy, they have a higher risk of incomplete resection. Therefore careful post operative imaging and follow ups are important.

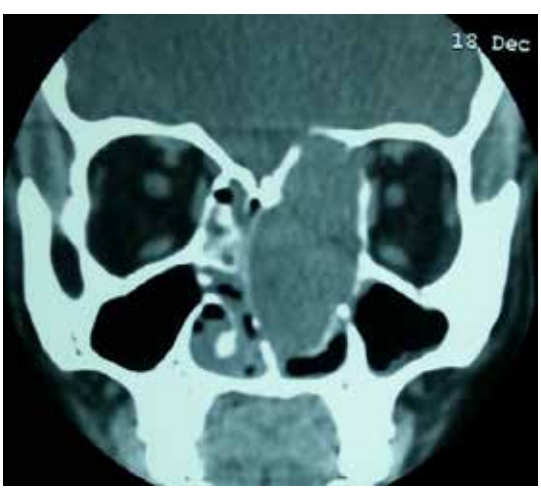
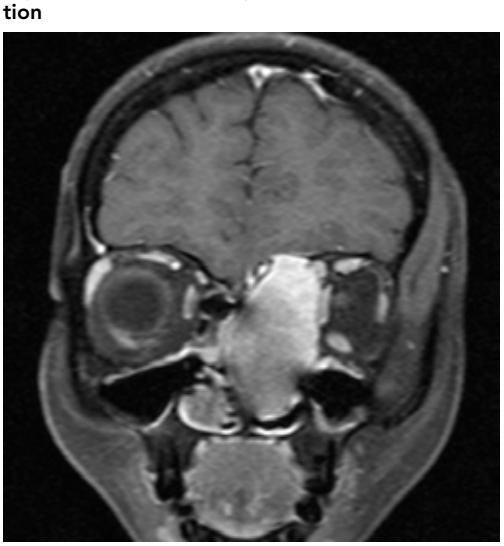


Figure 1: NCCT showing mass lesion with bone destruction



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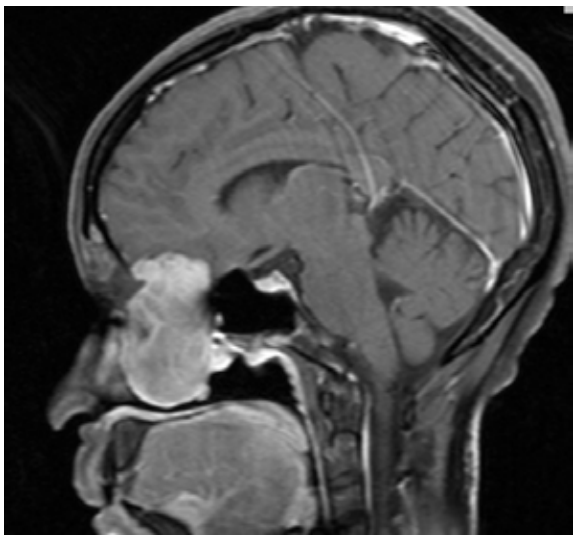

Figure 2: MRI showing the sinonasal tumor with orbital and intracranial extension

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