VOLUME - 12, ISSUE - 03, MARCH - 2023 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

ENT

A RARE CASE OF RECURRENT SINONASAL SCHWANNOMA

Dr. Karthik M*	Post Graduate *Corresponding Author
Dr. V Praveena	Assistant Professor
Dr. V Chandra Sekhar	Professor & HOD

ABSTRACT A rare benign tumour of the peripheral nervous system called a schwannoma can manifest itself in the nasal cavity. In this case study, we describe a rare instance of recurrent sinonasal schwannoma in a 60-year-old woman who had surgery 6 years prior for a sinonasal mass that was later determined to be schwannoma. The patient now exhibits on and off bleeding from the nose for the past 2 years, nasal obstruction, swelling around the nose, and mucopurulent nasal discharge. During inspection, there was swelling in the left dorsum of the nose, extending from the left medial canthus above to the left ala of the nose. A well-defined, heterogeneously increasing soft tissue attenuation lesion measuring 4.6x4x3.6 cm and originating from the left anterosuperior nasal cavity with cribriform plate erosion was seen on the CECT of Nose & PNS. Due to its extension and recurrence, the sinonasal mass was surgically removed using the lateral rhinotomy technique. With nuclear palisading, HPE revealed spindle cell growth and interlacing fascicles. Antoni A and Antoni B have verocay bodies that resemble an ancient schwannoma. At the six-month follow-up, the patient had no symptoms. Sinonasal schwannoma recurrence is quite uncommon. Despite recurrence, the likelihood of malignant change is quite low. The mainstay is total surgical excision.

KEYWORDS : Sinonasal Schwannoma, Recurrence, Verocay Bodies, Lateral Rhinotomy.

INTRODUCTION:

Schwannomas are benign tumours of the nerve sheath. Sinonasal involvement is an uncommon presentation. Just 4% of instances of schwannoma in the head and neck, which accounted for 25–45% of all cases, affected the sinonasal tract. The trigeminal nerve's branches are where the lesion begins[1]. The symptoms are similar to those of sinusitis, mucocele, and other common inflammatory sinonasal disorders including polyps. The median age of nasal schwannoma presentation, which ranged from 11 to 82 years, was 39 years. F:M of 1.8:1 indicated a preference towards females. The likelihood of a malignant change is quite low[1].

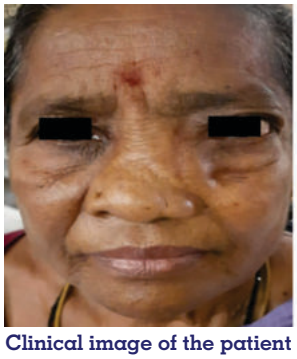
Case Report:

60-year-old female, a housewife, presented to the ENT OPD complaining of left nasal obstruction for two years that was continuous, without diurnal variation, accompanied by h/o swelling over the left side of the dorsum of the nose, h/o bleeding from the left nostril that was on and off, spontaneous in nature, minimal in quantity, and stopped on its own, h/o hyposmia, and h/o left nasal discharge that was mucopurulent No history of facial numbness, blurred vision, fever, headache, or vomiting was present.

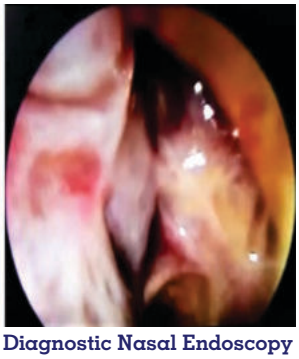
Surgery was previously performed for the same concerns six years ago. Endoscopic removal of the mass, which was then sent for HPE Macroscopically, several soft tissues varying in size from 0.5 cm to 5x1.5x1 cm, ranging from a greyish white to a grey brown colour.

A microscopically visible segment revealed a confined lesion made up of fascicles and elongated, wavy-nucleated cells with an oval to spindle shape. Focused regions reveal verocay bodies. Inflammatory cells and hyaline degeneration are visible in the stroma. Diagnosed as an ancient schwannoma.

On clinical examination, swelling in the left dorsum of nose extending from left medial canthus above to the left ala of nose. Eyeball movements and all cranial nerves examination were normal. On anterior rhinoscopy, DNS to the right side and a mass with mucopurulent discharge was noted in the left nasal cavity. On probing, not bleeding on touch & could not able to pass the probe laterally.



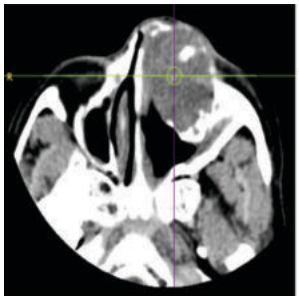
Clinical image of the patient



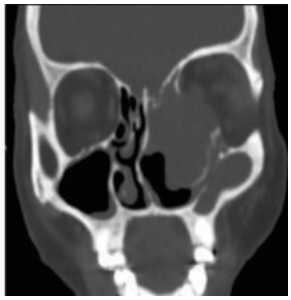
Diagnostic Nasal Endoscopy

Investigations:

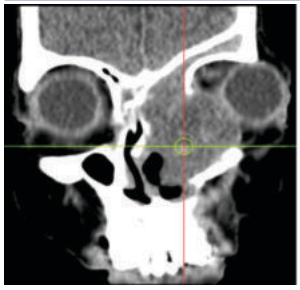
Contrast Enhanced Computed Tomography of nose and PNS revealed well defined heterogeneously enhancing soft tissue attenuation lesion sized 4.6x4x3.6 cm noted arising from left anterosuperior nasal cavity. There is destruction of cribriform plate, basal lamella with intracranial extension, medially destruction of perpendicular plate of ethmoid, laterally lamina papyracea with abutment of left medial rectus muscle. There is extension into left ethmoid and maxillary sinus. There is opacification of left frontal, ethmoid and maxillary sinus.



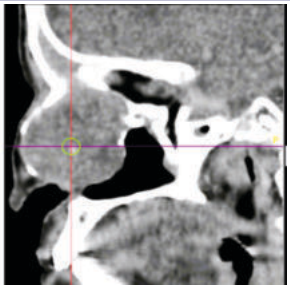
CECT PNS axial section - a well-defined heterogeneously enhancing soft tissue lesion noted arising from left anterosuperior nasal cavity extending into left maxillary & ethmoid sinuses.



CT bone window coronal section – lesion causes erosion of left cribriform plate superiorly, perpendicular plate of ethmoid bone medially and lamina papyracea laterally.



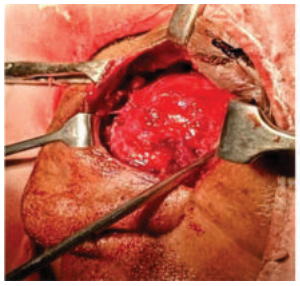
CECT PNS - coronal section



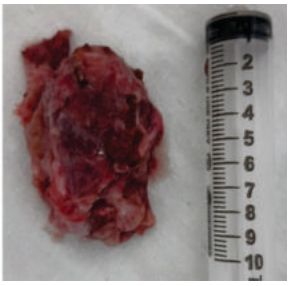
CECT PNS - sagittal section

Treatment:

Due to its extension and recurrence, the sinonasal mass was removed through lateral rhinotomy. A greyish brown mass that extends into the left maxillary antrum is visible in the left nasal cavity. The bulk was removed and sent for HPE. Gross examination revealed a 5x4x4 cm mass that was viscous and greyish brown in colour with well-defined margins. Because of its extension, a CSF leak was found during surgery after the mass was removed. Therefore, CSF leak repair done with fascia lata graft.

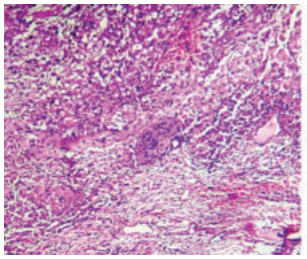


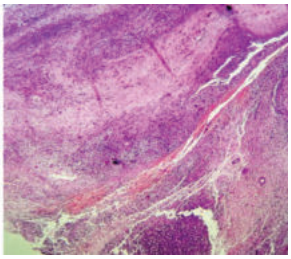
Sinonasal mass removed by lateral rhinotomy method.



Gross examination showed 5x4x4 cm sized greyish brown soft tissue with gelatinous circumscribed margins.

During microscopic inspection, spindle-shaped cells were organised in short bundles and formed interlacing fascicles with nuclear palisading in verocay bodies in the cellular regions. Section was composed of hypercellular Antoni A and hypocellular Antoni B areas with degenerative changes consistent with those of an ancient schwannoma. There was no evidence of malignancy.

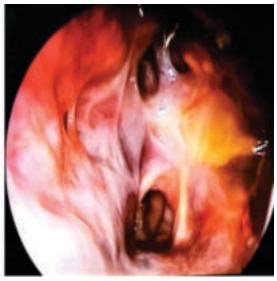




Outcome And Follow-up:

The patient was asymptomatic at 6 months follow-up. On nasal endoscopy, there was no evidence of residual or recurrent disease.

Post-op image of the patient



Post-op DNE

DISCUSSION:

Nasal blockage, discomfort, fullness, and epistaxis produced by unilateral tumours are often brought on by benign disease processes such polyps, cysts, and mucoceles. Similar symptoms are produced by sinus and nasal schwannomas, however they are far less common[2].

It has been suggested that sinonasal schwannomas may develop from the ophthalmic or maxillary branches of the trigeminal nerve, or from sympathetic or parasympathetic fibres from the carotid plexus, or from the sphenopalatine ganglion. Schwannomas are benign tumours of the peripheral nerve sheaths.

Around 45% of schwannomas develop in the head and neck area. Less than 4% of the schwannomas in the head and neck area are sinonasal schwannomas, which are extremely uncommon. The ethmoid sinus, followed by the maxillary sinus, nasal fossa, and sphenoid sinus, is the one that is most frequently affected[3].

While ptosis, proptosis, or diplopia can occur on occasion, the majority of patients report with increasing nasal blockage along with discomfort, headache, and epistaxis[2].

Nasal endoscopy, CT, and MR imaging of the paranasal sinuses should be part of the diagnostic process for sinonasal schwannoma in order to assess the disease's extent and guide the surgical procedure for excision. The course of therapy entails total surgical excision. Due to their typical focal origin and encapsulation, schwannomas are frequently amenable to endoscopic resection[2]. Complete surgical excision is used as a therapy for situations of recurrence too.

Neurofibroma, meningiomas, angiofibroma, glomangiopericytoma, leiyomyomas, inflammatory polyps, inverted papillomas, melanoma, and neuroblastomas are differential diagnosis for schwannoma in the nasal cavity. Malignant peripheral nerve sheath tumours may be misdiagnosed as schwannomas if they exhibit ancient alteration. Schwannomas have strong immunostaining for S-100, which allows one to distinguish them from malignant peripheral nerve sheath tumors[4].

This case study demonstrates the need of include schwannoma in the differential diagnosis of any soft tissue tumour affecting the sinonasal regions. Recurrence is not uncommon despite the fact that it is a rare disorder. Depending on the location and extent of the lesion, total surgical excision is recommended in the event that it returns[4].

REFERENCES:

1. Mosalleum, E. M., & Phillips, V. M. (2015). Schwannoma of the nasal cavity: A case report and a review. *Sudan Medical Monitor*, *10*(1), 27.
2. Wong, E., Kong, J., Oh, L., Cox, D., & Forer, M. (2016). Giant primary schwannoma of the left nasal cavity and ethmoid sinus. *Case reports in otolaryngology*, *2016*.
3. Dhawle, M. S., Rathod, S. G., Bhatkule, M. A., & Bindu, R. S. (2017). Sinonasal schwannoma–A case report. *Journal of clinical and diagnostic research: JCDR*, *11*(5), ED22.
4. Monteiro, R., Garg, B., & Choudhary, I. (2020). Schwannoma of the nasal cavity: a rare case report. *Int J Health Sci Res*, *10*(1), 117-120.