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A Rare Case Report
Atypical Angiofibroma - Dorsum of Nose:

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Abstract: *A 29-year-old male patient presented with painless swelling over right dorsal aspect of nose for last 3months. Endoscopic evaluation revealed normal anatomical structures. Ultrasonography with Colour Doppler showed areas of central and peripheral vascularity. CT Nose & PNS findings were suggestive of capillary-haemangioma. Excision of the mass was done, histopathological & immunohistochemistry confirmed the diagnosis of an angiofibroma.*

I. Introduction

Angiofibromas are benign, vascular, nonencapsulated but locally aggressive tumours which most commonly arise in the nasopharynx of adolescent males. The tumour contains both vascular and fibrous elements intermingling together. It usually arises from the posterolateral wall of the nasal cavity, where the sphenoidal process of the palatine bone meets the horizontal ala of the vomer and the pterygoid process. Angiofibromas accounts for about 0.5% of all head and neck neoplasms. These tumours may rarely arise in extranasopharyngeal sites. We report an atypical case of angiofibroma of dorsum of nose.

II. Case Report

A 29-year-male patient came to the outpatient department with a three months history of gradually enlarging swelling over right dorsal aspect of nose(Figure1) with no history of nasal obstruction or intermittent epistaxis. The patient had no other health problems. All the blood parameters were normal. Anterior rhinoscopy & Posterior rhinoscopy revealed normal anatomical structures.

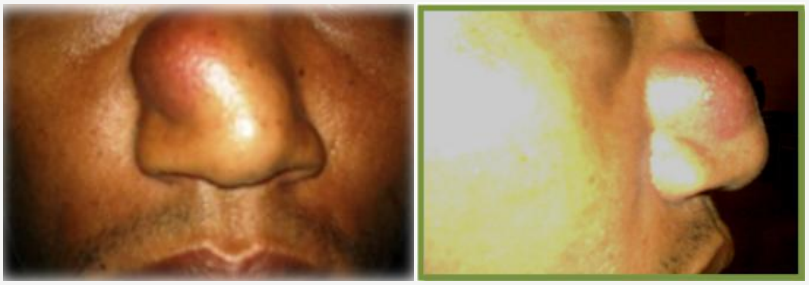

Figure 1 & 2: A swelling over right dorsal aspect of nose.

- USG with colour doppler of Nose: showed SOL measuring approximately 18.6 by 13.5mm on the right side of dorsum of nose with central & peripheral vascularity.
- Computed tomography (CT) scan of the nose & faciomaxillary region was suggestive of capillary-haemangioma with no bony erosion or any sinus invasion.

The surgical excision of mass was done under general anaesthesia. It was lobular, smooth, reddish, about 1 cm long tumour and with the diameter up to 0.8cm(fig 2).

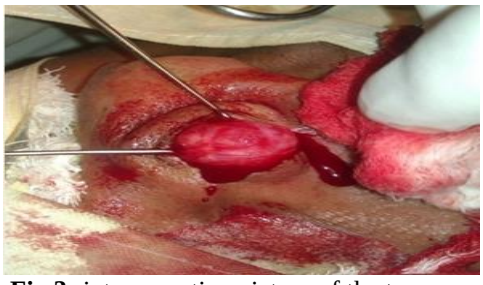

Fig 3: intraoperative picture of the tumour.

There was profuse bleeding which was controlled with electrocauterisation. The mass was sent for histopathological analysis. The patient was then discharge after 2days with antibiotic therapy for 7days. The patient was again reviewed on day 7th of postoperative day were antiseptic dressing with stitches were removed and the wound was found to healed and healthy.

- Histopathological examination of the excised masses (hematoxylin-eosin stain) revealed spindle cells, stellate cells of the mesenchymal cells separated by wavy, haphazardly arranged collagen bundles. Nuclei in stromal cells were hyperchromatic. No mitotic figures were seen. Occasionally stromal cells possessed abundant cytoplasm resembling ganglion cells. Occasionally giant cells were seen. Small dilated blood vessels with RBCs were seen. This suggested the diagnosis of angiofibroma.
- Immunohistochemistry confirmed the diagnosis of angiofibroma (vimentin & CD31 positive).

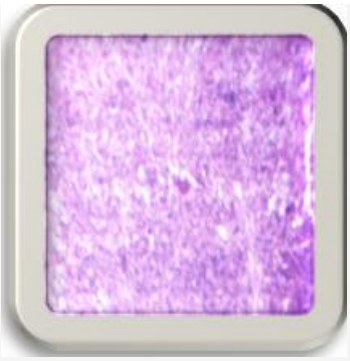

Figure 4: Histopathology showing dense fibrocollageneous stroma with small dilated blood vessels.

III. Discussion

- Primary extranasopharyngeal angiofibroma is very rare. Till date approximately 60 cases have been reported in English literature .The most common site for extranasopharyngeal angiofibroma is the maxillary sinus.
- The ethmoid and sphenoid sinuses, nasal septum, middle and inferior turbinate, conjunctiva, molar and retromolar region & larynx are other sites where extranasopharyngeal angiofibromas have been reported . Etiology for extranasopharyngeal angiofibroma is due to ectopic tissue which may be located away than usual place & may have been the cause of the extranasopharyngeal location .
- The patients who have different characteristic other than classical angiofibroma may be called atypical angiofibroma. Angiofibroma presenting with at least one of the following criteria such as origin or location other than nasopharynx, presenting complains other than nasal obstruction or epistaxis, age younger than seven or older than 25, female sex, atypical histopathology and multifocality were considered as atypical .
- Extranasopharyngeal angiofibroma of dorsum of nose is a very rare tumour with no such cases reported so far .
- Our case present as atypical angiofibroma as many of the criterias (29year-old person presenting with chief complain of painless swelling of dorsum of nose and with no h/o epistaxix) are fulfilled. Angiofibroma of dorsum of nose is difficult to diagnose & needs high degree of suspicion. Surgical excision of angiofibroma should be performed. Excision of mass is the treatment of choice and recurrence is rare .

IV. Conclusion

Extranasopharyngeal angiofibroma arising from the dorsum of the nose is an extremely rare tumour. The exact cause is not known. It probably comes from an ectopic tissue. Radiological and endoscopic examination along with histopathological analysis is necessary for its diagnosis. Surgical excision of the mass is the treatment of choice.

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