EXTRANASOPHARYNGEAL ANGIOFIBROMA ORIGINATING FROM NASAL SEPTUM IN A FEMALE - A RARE CASE REPORT

V.P. Narve¹, Mohini Vyas², Manish Kumar Sachan³, Hemendra Singh Kadam⁴, Rajveer Basu⁵

ABSTRACT: The term extranasopharyngeal angiofibroma has been applied to vascular, fibrous nodules occurring outside the nasopharynx. Medical literature has been reviewed and only 65 patients of extranasopharyngeal angiofibroma have been reported. Among them maxillary sinus is the most common site involved, while the nasal septum represents an extremely rare localization, and to the best of our knowledge only 18 such cases have been reported in the international literature. Extranasopharyngeal angiofibroma of the head and neck in women is very rare. We here present a rare case of extranasopharyngeal angiofibroma originating from nasal septum and inferior turbinate in adult female.

KEY WORDS: Nasal septum, extranasopharyngeal angiofibroma, Female, Rare

INTRODUCTION: Nasopharyngeal angiofibroma is a rare benign vascular tumor, which represents 0.5% of all head & neck tumor, occurring predominantly in nasopharynx in adolescent male. The usual site of origin of this tumor is in region of sphenopalatine foramen in nasopharynx. The term extranasopharyngeal angiofibroma has been applied to vascular, fibrous nodules occurring outside the nasopharynx. These lesions differ from than that of the classical nasopharyngeal variety in being more common in females, older individuals, with early presentation, poor vascularity and infrequent recurrence. Medical literature has been reviewed and only 65 patients of extranasopharyngeal angiofibroma have been reported. Among them maxillary sinus is the most common site involved, while the nasal septum represents an extremely rare localization, and to the best of our knowledge only 18 such cases have been reported in the international literature. Computerized tomography scan and magnetic resonance imaging are used to determine the tumour site and its extension. Surgical excision of the mass is the treatment of choice, and recurrence is rare. Typically, clinical characteristics of extranasopharyngeal angiofibroma do not confirm with that of nasopharyngeal angiofibroma and, for this reason, these tumours must be regarded as a separate entity. Due to these different features, extranasopharyngeal angiofibromas can present a diagnostic challenge and a meticulous evaluation with a high index of suspicion is essential in establishing the correct diagnosis and treatment.

Extranasopharyngeal angiofibroma in women is very rare, and clinical characteristics do not confirm to that of nasopharyngeal angiofibroma. We present here a case of angiofibroma in 40 yr old female arising from right anteroinferior nasal septum and inferior turbinate with history of only 1 episode of epistaxis. Surprisingly in our case there was minute blood loss during local excision of septal angiofibroma. The patient is free of disease.
**CASE REPORT**: A 40 years old female presented to us with complaints of nasal discharge and nasal obstruction of right nasal cavity for last 2 months along with 1 episode of nasal bleeding. There was no history of headache, blurring of vision and sneezing.

Physical examination revealed raised dorsum on right side, pale- glistening mass in the right nasal cavity covered by mucosa. Probe can be passed all around the mass except medially and laterally, insensitive to touch, not bleed on probing. No abnormality found on posterior rhinoscopy, in oral cavity and oropharynx. Spatula test was negative on right side, her total leucocyte count was 9,800/cmm. other investigations were normal.

![Figure 1: clinical photograph showing pale mass in right nasal cavity](image1)

![Figure 2: CT nasal and paranasal sinuses showing soft tissue density lesion involving anterior part of right nasal cavity](image2)
On investigations, CT scan (figure-2) revealed small soft tissue density lesion involving anterior part of right nasal cavity, abutting the nasal septum & anterior part of right inferior nasal turbinate, most likely mucosal polyp. Patient remains symptom free for last 2 months.

Right nasal mass excision was done and sample sent for histopathological examination which was suggestive of angiofibroma.

**DISCUSSION:** Nasopharyngeal angiofibroma is a well-defined entity sharply localized in time, space, and sex. The tumour virtually always arises from the nasopharynx and only later may extend into the nasal cavity. More recently, the term extranasopharyngeal angiofibroma has been applied to vascular, fibrous nodules occurring outside the nasopharynx. However, extranasopharyngeal angiofibroma have virtually nothing in common with nasopharyngeal tumours and the use of the term angiofibroma for these lesions may therefore be confusing. In fact, these rare, benign, neoplasms are characterized by a different biological history and clinical features with respect to nasopharyngeal tumours and, for these reasons; they should be regarded as a separate clinical entity. Compared to nasopharyngeal angiofibromas, patients affected are older, females can also be involved, symptoms develop more quickly, and hypervascularity is less common. The case described here fulfilled all these features. The clinical presentation of extranasopharyngeal angiofibroma depends mainly on the localization and extent of the tumour. In those cases arising from nasal cavities, nasal obstruction and epistaxis are the more frequently reported symptoms. As far as concerns instrumental diagnosis, CT scan and magnetic resonance imaging (MRI) are used to determine the tumour site and its extension, with special attention being focused on skull base involvement, intracranial spread and relationship to important vascular and neurologic structures. While bone erosion can be more easily revealed by CT scan, MRI is adequate in demonstrating cortical erosion and cancellous replacement by tumour. The administration of a contrast agent in nasopharyngeal angiofibroma leads to a strong and usually homogeneous enhancement on CT and MRI T1 sequences. On the other hand, extranasopharyngeal angiofibroma usually enhances contrast medium or even nothing, due to the frequent poor vascularity of the tumour. CT scan to be sufficient for the diagnosis of extranasopharyngeal angiofibroma, as it clearly delineates and identifies the tumour. However, signs of suspected hypervascularity, upon CT scan or MRI, indicate the need for arteriography prior to surgical procedures in order to arrange the necessary precautions, such as embolization, and reduce the risk of brisk bleeding during biopsy or tumour removal. In this case, the poor vascularity of the lesion did not require preoperative embolization. Surgical excision of the mass is the treatment of choice, and recurrence is rare. Extranasopharyngeal angiofibroma must be taken into consideration in the differential diagnosis of nasal vascular tumours and the nasal septum should be regarded as a potential, though exceptional, localization of these neoplasms. Clinically, extranasopharyngeal angiofibromas, such as the one described in this case, fall into that category of odd presentations that do not fit within the accepted clinical parameters that one always expects to find in cases of angiofibroma. Whether these lesions represent, in fact, an angiofibroma or a variant of another lesion, is, it would appear, still open to discussion.
CASE REPORT

**Consent:** Written informed consent was obtained from the patient for publication of this case report and accompanying images.

**Funding:** None

**Conflict of interest:** None

**Acknowledgement:** We thank Dr Ritu nigam, Dr Shaila sidam, Dr R R. Chaturvedi for helping in diagnosis and management of the case. We also thank ethical committee of the hospital for ethical clearance.

**REFERENCES:**

AUTHORS:
1. V.P. Narve
2. Mohini Vyas
3. Manish Kumar Sachan
4. Hemendra Singh Kadam
5. Rajveer Basu

PARTICULARS OF CONTRIBUTORS:
1. Associate Professor & HOD, Department of ENT, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, M.P.
2. PG Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, M.P.
3. PG Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, M.P.
4. PG Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, M.P.
5. PG Student, Department of Otorhinolaryngology, Gajra Raja Medical College, Gwalior, M.P.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. V.P. Narve,
Associate Professor & HOD,
Department of ENT,
G.R. Medical College & JA Group of Hospitals,
Gwalior, M.P. - 474009
Email- drvpnarve@gmail.com

Date of Submission: 22/07/2013.
Date of Peer Review: 05/08/2013.
Date of Acceptance: 13/08/2013.
Date of Publishing: 27/08/2013