



RETROSPECTIVE STUDY OF NASOPHARYNGEAL ANGIOFIBROMA CASES AT RIMS, RANCHI

Pathology

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ABSTRACT

Background: Nasopharyngeal angiofibroma is a rare vascular tumor but most common benign neoplasm of the nasopharynx in young adults. Aim of study is to determine some demographic & clinical features of nasopharyngeal angiofibroma in our tertiary care hospital. Material & Methods: A retrospective study of histopathologically diagnosed cases of Nasopharyngeal Angiofibroma for a period of 28 months from January 2018 to April 2020. Results: Out of total 24 patients 17(70%) were males and 7(30%) were females. Most common age group was 6 to 30 years (67%) and most common size of the tumor was found to be 2-6 cm (75%). Conclusion: Nasopharyngeal angiofibroma is a rare tumor usually involving young males, grows to moderate size before surgery with no predilection for laterality.

KEYWORDS

nasopharynx, angiofibroma, sphenopalatine, histopathology

INTRODUCTION

Nasopharyngeal angiofibroma is an uncommon benign fibrovascular tumor that arises in the proximity of the sphenopalatine foramen. The tumor is known for its occurrence in adolescent males, local aggressiveness with possible extradural involvement of the skull base, and risk of profound hemorrhage. The predilection of nasopharyngeal angiofibroma for adolescent males suggests a hormonally influenced tumor [1]. Nasopharyngeal angiofibroma (NA) is a rare vascular tumor, which represents 0.05 % of all head and neck tumors. At the same time, it is the most common benign neoplasm of the nasopharynx [2]. Although histologically benign it shows locally aggressive growth with bone destruction and spread through natural foramina and fissures. It originates from the posterolateral wall of the nasopharynx and from this site usually extends to the nasopharynx, nasal cavity, paranasal sinuses, sphenopalatine foramen and infratemporal fossa. Extranasopharyngeal angiofibroma (ENA) is a rare finding. ENAs differ significantly from NAs. They lack typical clinical and radiological features as they develop in all age groups and in females, arise from various sites, may be less vascularised and produce a variety of symptoms depending on the point of origin. [3]. ENA are most commonly found in maxillary sinus (24.6%) along with other locations like in the ethmoid sinus, nasal cavity, nasal septum, larynx, sphenoid sinus, cheek, conjunctiva, oropharynx, retromolar area, middle turbinate and inferior turbinate [4-6].

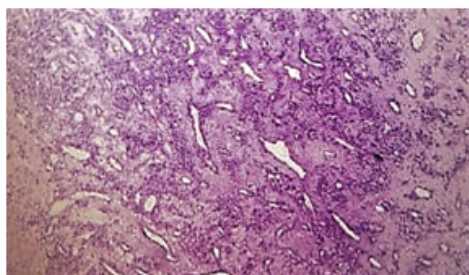


Figure 1: Nasopharyngeal Angiofibroma:

MATERIAL AND METHODS:

It was a retrospective record-based study, performed in the Department of Pathology, RIMS, Ranchi. Study Population included Nasopharyngeal Angiofibroma patients from medical records of January 2018 to April 2020. By using universal sampling method 24 patients were included in the study. Study Procedure involves case reports having patient age, sex, size, site and laterality of lesion. Surgically excised mass was transferred to jar containing 10% formaldehyde. Histopathological examination of all the specimens was done by routine paraffin wax sections and was stained by Haematoxylin and Eosin (H&E). The epidemiological data in terms of age, sex, site, laterality and size of tumor were compared. All data was analysed using Microsoft Excel 2019.

RESULT AND DISCUSSION:

Our present study of 24 cases included 17 cases of male (70%) and 7 cases of female patients (30%).



Fig.2: Sex Wise Incidence

Mean age of cases was 23.8 years. 67% of cases belong to age group 6 to 30 years. Youngest patient in our study was 6 years old whereas oldest patient was 50 years old. Hicks JL et al. observed that it occurs almost exclusively in males between 10 and 25 years of age⁷; however, well documented cases of older patients and in females are on record⁸.

Table – 1 Age-wise Incidence

Age group (years)	Number of cases
Upto 5	0
6-10	4
11-15	3
16-20	4
21-25	1
26-30	4
31-35	3
36-40	2
41-45	2
46-50	1
>50	0

11 cases were right sided and rest 13 were left in laterality. Single largest dimension of the lesion varied from 1-14 cm in size but most cases (75%) belonged to a range of 2-6 cm with mean size 4.59 cm. Roger G et al in his study observed the mean size of tumor to be 4.5cm⁹.

Table – 2 Size-wise Incidence

Size (cm)	Number of cases
Upto 1	1
1.1-2	1
2.1-3	6
3.1-4	8
4.1-5	1
5.1-6	3
6.1-7	0
7.1-8	2
>8	2

CONCLUSIONS:

We can say that Nasopharyngeal Angiofibroma is more commonly seen in children and young adults of male gender. Size may vary from small to large with most cases within the range of 2-6 cm in single largest dimension with near equal incidence on both sides.

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