Original Research Paper

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Paediatrics

PREVALENCE OF ADENOID HYPERTROPHY IN ADULT PATIENTS: A CROSS SECTIONAL STUDY

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ABSTRACT **Introduction:** Adenoid hypertrophy (AH) is typically associated with childhood but can persist into adulthood, causing significant nasal obstruction. Although adenoids generally regress after puberty, they can remain hypertrophied and symptomatic in adults.1 Adenoids, present from birth, reach their full size between the ages of three and seven, later they usually shrink naturally. Persistent acute infections are a well-known cause of enlarged adenoids, but allergic reactions are also hypothesized to contribute to this condition.2 **Aims and Objectives:** 1. To estimate prevalence of adenoid hypertrophy in adult patients 2. To estimate number of patients who will require surgery for adenoid hypertrophy in adult patients **Material And Methods:** 1. This was a Prospective study 2. This was a hospital based study conducted at Department of Otorhinolaryngology, PES Hospital, Kuppam **Results:** 1. The prevalence of adenoid hypertrophy among adults was 32.9% 2. Majority (63.3%) of the study subjects had Grade 2 adenoid hypertrophy, and 86.7% of the study subjects with adenoid hypertrophy underwent surgery

KEYWORDS :

INTRODUCTION:

In adults, nasal obstruction due to adenoid hypertrophy is often under diagnosed. This is particularly significant in adults with allergic rhinitis (AR), a condition characterized by symptoms such as sneezing, itching, rhinorrhea, and nasal congestion. AR affects individuals of all ages and is a major factor influencing the quality of life and productivity due to its high prevalence and associated complications, such as asthma and sinusitis.. Despite the regression of adenoidal tissue in adolescence, hypertrophied adenoids can still be the main culprit in adult nasal blockage.[3-5]

Aims And Objectives:

1. To know the prevalence of adenoid hypertrophy in adult patients
2. To estimate number of patients who will require surgery for adenoid hypertrophy in adult patients.

MATERIAL AND METHODS:

1. This was a Prospective study
2. This was a hospital based study conducted at Department of Otorhinolaryngology, PES Hospital, Kuppam
3. A Purposive sampling technique was used in this study

Inclusion And Exclusion Criteria:

Inclusion Criteria:

1. Patients aged between 18 to 70 years.

Exclusion Criteria:

1. Patients presenting with symptoms due to structural abnormalities such as grossly deviated nasal septum, nasal polyps, tumours etc.

RESULTS :

Table 1: Distribution Of Study Subjects According To Diagnostic Nasal Endoscopy

Diagnostic nasal endoscopy	Frequency (n)	Percentage(%)
Grade 1	3	10.0%
Grade 2	19	63.3%
Grade 3	8	26.7%
Total	30	100%

According to diagnostic nasal endoscopy, 67.1% did not have adenoid hypertrophy. Among the 30 study subjects with adenoid hypertrophy, majority (63.3%) had grade 2 adenoid hypertrophy followed by 26.7% of grade 3 and 10.0% of grade 1.

Table 2: Distribution Of Study Subjects In Relation To Undergoing Surgery

Surgery	Frequency (n)	Percentage(%)
Yes	26	86.7%
No	4	13.3%
Total	30	100%

Majority (86.7%) of the study subjects with adenoid hypertrophy underwent surgery

DISCUSSION:

Age distribution analysis in the current study indicated that the majority (45.0%) of participants were less than 30 years old. This aligns with the typical age-related patterns observed in adenoid hypertrophy, where younger individuals are more frequently affected. A notable finding in the current study is that the most prevalent age group among participants was 18-30 years, accounting for 60.9% of the total sample. This trend is corroborated by Khan et al[3-6], who also reported a significant proportion of patients in the 16-25 years age range, and by Shetty et al[7], where the most prevalent age group was 17-20 years. The high incidence of adenoid hypertrophy in young adults can likely be attributed to the persistence of paediatric adenoid hypertrophy into early adulthood, suggesting that adenoid tissue does not regress as promptly in some individuals. The present investigation identified adenoid hypertrophy in 46% among the individuals aged 18 to 60 years. This observation is consistent with findings from Kamel and Ishak's study [8] in Egypt, which reported 35 cases of enlarged 60 adenoids among individuals aged 20 to 42 years

Adenoid hypertrophy, while often associated with paediatric patients, also affects adults, particularly those presenting with nasal obstruction. Hamdan et al[9] investigated this condition's prevalence among adults, enrolling fifty-five patients with nasal obstruction and forty-nine controls matched for age and gender without a history of nasal obstruction. They found adenoid hypertrophy in 63.6% of patients with nasal obstruction and 55.1% of controls. In our study, 57.1% of subjects were observed to have moderate nasal obstruction, a finding consistent with the prevalence reported by Hamdan et al[9]. This alignment suggests that adenoid hypertrophy should be considered in the differential diagnosis for adults with nasal obstruction. Furthermore, the notable prevalence of adenoid hypertrophy in Hamdan et al.'s control group indicates that this condition can be asymptomatic in adults, underscoring the need for thorough diagnostic evaluations including imaging and endoscopic examinations. Both studies highlight a significant prevalence of adenoid hypertrophy in adults, particularly those with nasal obstruction. These findings emphasize the importance of complete history and clinical examination strategies for adenoid hypertrophy in the adult population. Majority (86.7%) of the study subjects with adenoid hypertrophy underwent surgery which was 100% in another study done by Kothekar etal.[10]

CONCLUSIONS:

- The prevalence of adenoid hypertrophy among adults was 32.9%
- Majority (63.3%) of the study subjects had Grade 2 adenoid hypertrophy.
- Majority (86.7%) of the study subjects with adenoid hypertrophy underwent surgery
- Higher (46.3%) prevalence of adenoid hypertrophy in subjects under 30 years.

Age was statistically significantly associated with the prevalence of adenoid hypertrophy.

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