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# PREVALENCE OF ALLERGIC RHINITIS & PREFERENCE FOR REMEDY IN THE STUDENTS OF AZRA NAHEED MEDICAL COLLEGE

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# **ABSTRACT**

**Aims and Objectives:** The aim of this research was to see the prevalence of allergic rhinitis in students of Medical College and the preference for remedy.

**Study design:** this was cross sectional study. The study sample was consisted of 199 students enrolled at Medical College at present.

**Results:** Seventy three out of 199 (36.68%) students had symptoms of nasal allergy. The main symptom is sneezing in 73 (36.68%) students followed by nasal discharge in 72 (35%). Thirty six and half (36.5%) students were taking antihistamines to cure nasal allergy. Twelve percent students were taking other treatment like hot drinks ,nasal douches or steam inhalation. Only 2% participants were taking steroids for their disease control

**Conclusion:** Allergic rhinitis is a serious disease affecting the quality of life badly. Its incidence is quite high as we expected before this study.

Key words: Nasal allergy, Self-Medication, Sneezing.

## INTRODUCTION

Allergic rhinitis (AR) is chronic nasal illness due to immunoglobulin E (IGE) following exposure to allergies (1). Allergic rhinitis may be seasonal and persistent. In seasonal AR, signs and symptoms arise all through a short period due to pollen exposure, whereas in the case of persistent AR, symptoms may additionally last for 2 hours a day and for greater than a year. Signs of episodic rhinitis occur as a result of exposure to common allergens.

Symptoms of AR typically appear earlier than the age of 20 (2), and may reduce or affects patients routine performance. Every year, experts recognize a considerable burden of signs and symptoms of AR (which include coughing, itching, rhinorrhea, watering eyes and congestion) in patients, resulting in heavy treatment loads<sup>1</sup>

So far, a number of studies have been carried out only on the prevalence of AR (2). The incidence of (allergies and rhinitis in Pakistan is 19.70% in big cities)<sup>3</sup>. A similar spread of 35.3% between the ages of 12-13 was reported in the town of Gorgo<sup>4,5</sup>.

As college is surrounded by, the way of a heavy load of visitors, agricultural land, and a variety of air pollutants of industry, we decided to find out the Allergic rhinitis in medical students of this college

## **METHODOLOGY**

**Study design:** This was cross sectional study. The study sample was consisted of 750 medical college students enrolled at Medical College at present. The study was conducted after approval from Institutional Ethical Review board. A questionnaire related to said title was delivered through Google forms to all the students of MBBS, from 1<sup>st</sup> year to 5<sup>th</sup> year for collection of data. The data was collected The sample size was calculated by RAO Soft and the data was analyzed by SPSS, version 20.

#### **Results**

The 200 students filled the form and returned back , one student form was not properly filled so we took data of 199 students for compilation of results .All the MBBS classes participated in the survey .The maximum participation was from  $4^{th}$  year ( 47%) , minimum participation 2% was from  $2^{nd}$  year MBBS class .Regarding gender distribution 53% were female and 47% were male participants .The age range was 17 years to 27 years .Regarding symptoms of allergic rhinitis 73 (36.68%) students had symptoms of nasal allergy .

Prevalence of allergic rhinitis Count

199		Do you have symptoms of allergic rhinitis		Total
		yes	No	
Age of respondent 2 2 2 2 2 2 2 2	17	1	0	1
	18	2	3	5
	19	9	15	24
	20	10	10	20
	21	15	15	30
	22	16	38	54
	23	16	24	40
	24	2	16	18
	25	2	4	6
	27	0	1	1
Total		73	126	199

With the analysis of individual symptoms like sneezing ,nasal discharge ,nasal obstruction ,throat and eye irritation ,it was found that the major symptom is sneezing in 73 ( 36.68%) students followed by nasal discharge in 72 (35%) ,The nasal obstruction was in 52( 26%) and eye irritation in 66 (33%) students .

### Crosstab

#### Count

		sneezing		
		yes	no	Total
year of study	1	24	28	52
	2	1	0	1
	3	7	10	17
	4	30	64	94
	5	11	24	35
Total		73	126	199

Regarding remedy for allergic rhinitis either they are doing self medication or following doctors advice. Fifty six percent patients do not take any medication or advice. In the the group who were taking treatment by itself or by doctors advice ,36.5 % students were taking antihistamines to cure nasal allergy .Twelve % students were taking other treatment like hot drinks ,nasal douches or steam inhalation .only 2% participants were taking steroids for their disease control .

## **Discussion**

The analysis of compiled data showed that the prevalence of allergic rhinitis in medical students of this College Lahore is 36.68%. This figure is compared able to the study conducted on the medical students of the University of a free state, South Africa, where 39.1 % of students had a nasal allergy as diagnosed by history and investigation like skin prick tests and blood analysis<sup>6</sup>. All the classes participated in the survey. The maximum participation was from the 4th-year class, 94 students (47%), then 1st-year class, 52 students (27%). The only one student participated from 2<sup>ND</sup> year, that may due to their engagement in examinations

The most common symptom of allergic rhinitis was sneezing in 36.68%, then nasal discharge in 35% of students. Throat and eye irritation were present in 33% participants, and nasal blockage in 25% .this study was comparable to the conducted in South Africa, which showed that the main symptoms of nasal allergy were nasal obstruction, nasal discharge, and repeated sneezing<sup>8,9</sup>.

There were two modes of treatment either self-treatment or after consulting a doctor. In either condition, 56% of students do not take any treatment. In the treatment group, 36.5% of students were using antihistamines of a different variety, and 12% of students were taking other treatments like hot drinks, tea, and soup. Only 2% of students were taking steroids to cure their nasal allergy symptoms. In another study, steroids were the treatment of choice for nasal allergy, but the most commonly used drug was antihistamines and 30% of patients were taking drugs from pharmacists without consulting doctors <sup>10, 11, 12</sup>. So it is needed to educate people to consult doctors for their medical issues and not do self-medication or take advice from unqualified doctors.

#### Conclusion

Allergic rhinitis is a serious disease affecting the quality of life badly. Its incidence is quite high as we expected before this Research .The risk factors involved should be thoroughly checked Self Medication and poor compliance to treatment should be discouraged.

# References

- 1. Small P, Keith PK, Kim H. Allergic rhinitis. Allergy, asthma. Clin Immunol off J Can Soc Allergy Clin Immunol. 2018;**14**(Suppl 2):51–55. [Google Scholar]
- 2. Wise SK, Lin SY, Toskala E, et al. International consensus statement on allergy and rhinology: allergic rhinitis. Int Forum Allergy Rhinol. 2018;8(2):108–352. [PMC free article] [PubMed] [Google Scholar]
- 3. Hossenbaccus L, Linton S, Garvey S, et al. Towards definitive management of allergic rhinitis: best use of new and established therapies. Allergy, asthma. Clin Immunol off J Can Soc Allergy Clin Immunol. 2020;**16**(39):1–17. [PMC free article] [PubMed] [Google Scholar]
- 4. Green RJ, Hockman M, Friedman R, et al. Chronic rhinitis in South Africa: Update 2013. S Afr Med J 2013;103(6): 419–422. doi:10.1796/SAMJ.6972. [Crossref], [PubMed], [Web of Science ®], [Google Scholar]
- 5. Zar HJ, Ehrlich RI, Workman L, Weinberg EG. The changing prevalence of asthma, allergic rhinitis and atopic eczema in African adolescents from 1995 to 2002. Pediatr Allergy Immunol 2007;18(7): 560–565. doi:10.1111/j.1399-3038.2007.00554.x. [Crossref], [PubMed], [Web of Science ®], [Google Scholar]
- 6. Seedat RY . Allergic rhinitis more than just a nuisance. Current Allergy & Clinical Immunology. 2013;26(1): 8–9. [Google Scholar]
- 7. Green RJ, Davis G, Price D. Concerns of patients with allergic rhinitis: the Allergic Rhinitis Care Programme in South Africa. Primary Care Respiratory Journal 2007;16(5): 299–303. doi:10.3132/pcrj.2007.00062. [Crossref], [PubMed], [Google Scholar]
- 8. Walker S , Khan-Wasti S , Fletcher M , Cullinan P , Harris J , Sheikh A . Seasonal allergic rhinitis is associated with a detrimental effect on examination performance in United Kingdom teenagers: case-control study. Journal of Allergy and Clinical Immunology 2007;120(2): 381–387. doi:10.1016/j.jaci.2007.03.034. [Crossref], [PubMed], [Web of Science ®], [Google Scholar]
- 9. Allergic rhinitis in medical students at the University of the Free State RY Seedata\*, M Sujeeb, W Ismailb, NY Vallybhaib, MI Cassimb, S Khanb, A Solwab and G Joubertc
- 10. Sapsaprang S, Setabutr D, Kulalert P, Temboonnark P, Poachanukoon O. Evaluating the impact of allergic rhinitis on quality of life among Thai students. International Forum of Allergy & Rhinology 2015;5(9): 801–7. doi:10.1002/alr.21540.
- 11. Seedat RY, Rautenbach J, Steenkamp G, Venter J, Joubert G. Allergen sensitivities of patients with allergic rhinitis presenting to the ENT clinic at Universitas Academic Hospital. Current Allergy & Clinical Immunology. 2006;19(3): 130–2.
- 12. Seedat RY, Claassen J, Claassen AJ, Joubert G. Mite and cockroach sensitisation in patients with allergic rhinitis in the Free State. S Afr Med J 2010;100(3): 160–3. https://doi.org/10.7196/SAMJ.3669
- 13. Canonica GW, Mullol J, Pradalier A, Didier A. Patient perceptions of allergic rhinitis and quality of life. World Allergy Organization Journal 2008;1(9): 138–44. doi:10.1097/WOX.0b013e3181865faf.