

ORIGINAL ARTICLE

Clinical profile of patients with Allergic rhinitis

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ABSTRACT:

Background: Allergic rhinitis (AR) is a chronic inflammatory disease of the nasal mucosa. The present study assessed clinical profile of patients with allergic rhinitis. **Materials & Methods:** 68 cases of allergic rhinitis of both genders were included. Parameters such as socio- economic status, history of allergens, occupation etc. were recorded. A thorough examination of nasal cavity was conducted by an expert ENT surgeon. Clinical symptoms such as nasal blockage, running nose, hypertrophy of turbinates etc. was also recorded. **Results:** Age group 10-20 years had 8, 21-30 years had 12, 31-40 years had 16, 41-50 years had 10 and >50 years had 22 cases. Common symptoms were running nose seen in 65, nasal blockage in 60, sneezing in 52, nasal itching in 40 and watery eyes 27cases. A significant difference was seen (P< 0.05). Allergens found to be tobacco smoke in 45, animals in 20, pollen in 31 and dust in 12. Severity was mild intermittent seen in 12, moderate/ severe intermittent in 16, mild persistent in 28 and moderate/ severe persistent in 22. The difference was significant (P< 0.05). **Conclusion:** Allergic rhinitis is common among all age groups. Allergens found to be tobacco smoke, animals, pollen and dust.

Key words: Allergic rhinitis, intermittent, dust

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INTRODUCTION

Allergic rhinitis (AR) is a chronic inflammatory disease of the nasal mucosa. An increase of release of inflammatory mediators and cytokines is significant in AR which is triggered by allergens and is mediated by antibody immunoglobulin E (IgE).¹ The prevalence of AR has increased substantially in recent decades and it imposes a heavy healthy and socioeconomic burden on the patients. Although several cross-sectional population-based studies have been performed to analyze the prevalence of AR in multiple major cities, the characteristics of the AR trigger factors and the associated risk factors have been less reported. In addition, large variation existed in the epidemiological data regarding the prevalence rate of AR in different cities.²

There are numerous risk factors for AR. Indoor and outdoor allergens as well as occupational agents cause rhinitis and other allergic diseases. Pollen dust, grass, perfume, smoke and dust particles are allergens. Genetics also play an important role. World health organization (WHO) revised the classification of AR. It has been classified as mild, moderate and severe.³ It is further classified as intermittent and persistent. If it

is less than 4 days a week then it is intermittent and if more than 4 days a week, then it is persistent. Daily activities, sleep pattern, school activities etc. are affected in mild forms. In severe form, all above symptoms is present plus consistency is maintained throughout the day with worsening of symptoms at night.⁴ The present study assessed clinical profile of patients with allergic rhinitis.

MATERIALS & METHODS

The present study comprises of 68 cases of allergic rhinitis of both genders. All patients agreed to participate in the study and their consent was taken. Data such as name, age, gender etc. was recorded. Parameters such as socio- economic status, history of allergens, occupation etc. were recorded. A thorough examination of nasal cavity was conducted by an expert ENT surgeon. Clinical symptoms such as nasal blockage, running nose, hypertrophy of turbinates etc. was also recorded. All patients underwent CT nasal sinuses view. Results were assessed statistically. P vale less than 0.05 was considered significant (P< 0.05).

RESULTS

Table 1 Age and gender distribution

Age group (Years)	Number	P value
10-20	8	0.12
21-30	12	
31-40	16	

41-50	10
>50	22

Table I shows that age group 10-20 years had 8, 21-30 years had 12, 31-40 years had 16, 41-50 years had 10 and >50 years had 22 cases. A non-significant difference was seen ($P>0.05$).

Table 2 Assessment of clinical features

Clinical features	Number	P value
Sneezing	52	0.82
Nasal itching	40	
Watery eyes	27	
Running nose	65	
Nasal blockage	60	

Table II, graph I shows that common symptoms were running nose seen in 65, nasal blockage in 60, sneezing in 52, nasal itching in 40 and watery eyes 27 cases. A significant difference was seen ($P< 0.05$).

Graph 1 Assessment of clinical features

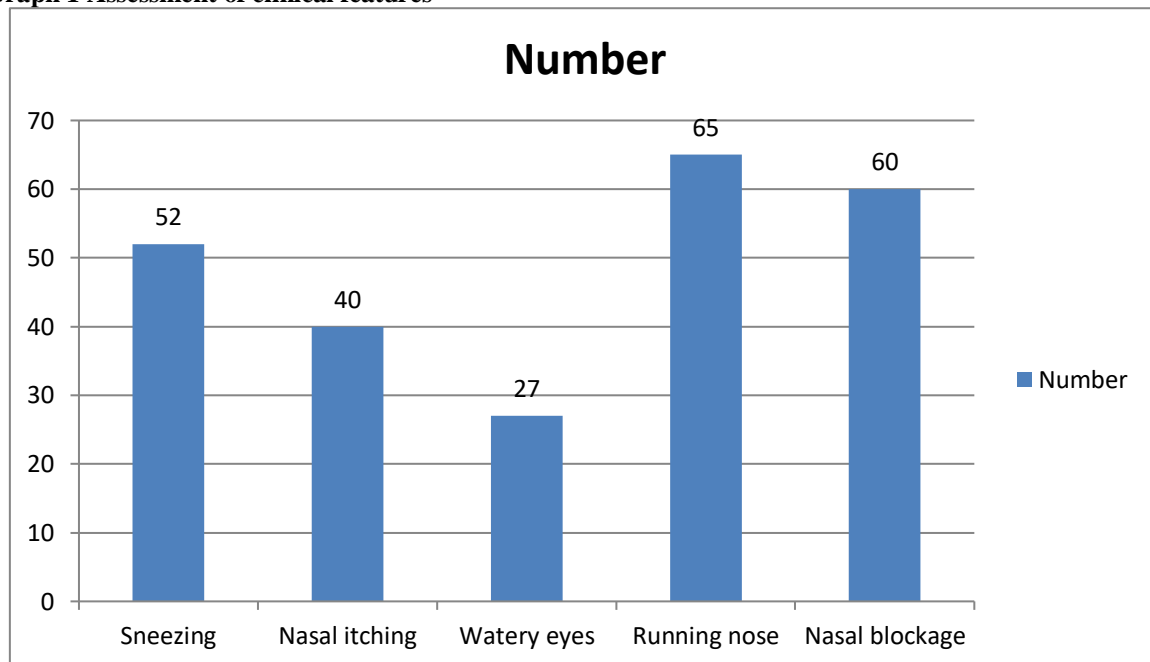


Table 3 Assessment of parameters

Parameters	Variables	Number	P value
Allergens	Tobacco smoke	45	0.05
	Animals	20	
	Pollen	31	
	Dust	12	
Severity	Mild intermittent	12	0.71
	Moderate/ severe intermittent	16	
	Mild persistent	28	
	Moderate/ severe persistent	22	

Table III shows that allergens found to be tobacco smoke in 45, animals in 20, pollen in 31 and dust in 12. Severity was mild intermittent seen in 12, moderate/ severe intermittent in 16, mild persistent in 28 and moderate/ severe persistent in 22. The difference was significant ($P< 0.05$).

DISCUSSION

Allergic rhinitis (AR) is a common condition affecting approximately 20-25% of general population. It is also known as hay fever. It is the main reason among youngster to visit ENT surgeon.⁵ The number of cases is on rise day by day.¹ It is characterized by allergic reaction inside the nasal cavity leading to

immunoglobulin E (IgE) mediated inflammation of the membranes lining the nose with release of inflammatory chemicals such as histamine from mast cells.⁶ It is seen that subjects may also find that cross-reactivity such as someone allergic to birch pollen may also find that he has an allergic reaction to the skin of apples or potatoes.⁷ A clear sign of this is the

occurrence of an itchy throat after eating an apple or sneezing when peeling potatoes or apples. The reason is the similarities in the proteins of the pollen and the food.⁸ The present study assessed clinical profile of patients with allergic rhinitis.

We found that age group 10-20 years had 8, 21-30 years had 12, 31-40 years had 16, 41-50 years had 10 and >50 years had 22 cases. Abri et al⁹ in 127 patients with nasal complaints, 48% of patients had AR, and 52% had non-allergic rhinitis. The prevalence of AR was 7%, with females being more affected than males, and age ranging from 18 to 51 years. Prevalence of perennial AR was 84% compared to seasonal AR which was 16%. The most common perennial antigens were house dust mites (80%) followed by cockroaches (67%). All patients diagnosed with seasonal AR were found to be sensitive to Russian thistle. The prevalence of chronic rhinosinusitis in patients with AR was 34%.

We observed that common symptoms were running nose seen in 65, nasal blockage in 60, sneezing in 52, nasal itching in 40 and watery eyes in 27 cases. Li et al¹⁰ assessed the prevalence rate of AR in the general population of Guangzhou (6.24), with a significant higher prevalence in urban area (8.32%) versus rural area (3.43%). Among the AR subjects, most (87%) were diagnosed with intermittent AR and 87% suffered from moderate-severe symptoms. High percentages of the AR patients did not have previously physician-based diagnosis (34%) or specific medical treatment (55%). Morning time, winter season, and cold air were the most common trigger factors of AR. Family history of AR, current living place, living place during babyhood, smoking, home renovation, and pet ownership were the significant risk factors associated with AR prevalence in the population. The study demonstrated comprehensive epidemiological and clinical information about the AR in Guangzhou population. Change of living environment and lifestyles had strong impacts on the prevalence of AR. Public health policies should help the patients benefit from a proper diagnosis/treatment and specifically target the local risk factors, in order to control the AR incidence.

We found that allergens found to be tobacco smoke in 45, animals in 20, pollen in 31 and dust in 12. Severity was mild intermittent seen in 12, moderate/severe intermittent in 16, mild persistent in 28 and moderate/ severe persistent in 22. Deb et al¹¹ in 548 patients, 462 patients were diagnosed with AR. It was observed that proportion of “blockers” was 64.1% whereas those “sneezers-runners” were 35.9%. Meltzer et al¹² among 2355 individuals with AR found that more than 80% of the respondents experienced nasal congestion at night, and 17% indicated that this is the most bothersome nocturnal symptoms. A study conducted by Alyasin and Amin¹³

found that 58.3% was “moderate/severe persistent”, 34.4% were “mild persistent” (34.4%) and 4.2% were “moderate severe intermittent” and 2.1% were “mild intermittent”.

CONCLUSION

Authors found that allergic rhinitis is common among all age groups. Allergens found to be tobacco smoke , animals, pollen and dust.

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