

## Original Research Article

# Knowledge, attitude and practice about allergic rhinitis in a rural population, Kancheepuram district, Tamil Nadu

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## ABSTRACT

**Background:** Allergic rhinitis presents a global health problem. The lack of awareness about allergic rhinitis leads to poor adherence to management protocol.

**Methods:** Our cross sectional study in 100 patients with allergic rhinitis was aimed at assessing the knowledge, attitude and practice about the disease. This was done using a questionnaire. Descriptive analysis was made in the three domains and expressed in percentage.

**Results:** The knowledge about the cause and the treatment options was low. Most of the patients were worried about the long term side effects and dependence of the drugs used for treatment of allergic rhinitis. Most patients ignore the symptoms and do not seek medical advice.

**Conclusions:** Improving the patient's knowledge and attitude through health education can improve practices among allergic rhinitis patients.

**Keywords:** Allergic rhinitis, Knowledge, Attitude, Practice

## INTRODUCTION

Allergic rhinitis is hypersensitivity of the nasal mucosa to allergens. It can be associated with hypersensitivity of the lower airways, atopic dermatitis and allergic conjunctivitis. Allergic rhinitis is becoming more common but still an underreported and under treated condition. The prevalence of allergic rhinitis is increasing with time. The worldwide prevalence of allergic rhinitis is about 10-30% in adults.<sup>1</sup> Allergic rhinitis is a global health problem affecting social life, sleep, school and work with a significant economic impact.<sup>2</sup> The increase in allergic tendency is more probably because of decrease in rate of infections in childhood.<sup>3</sup>

The best treatment for allergic rhinitis is to find out the allergen and avoid it. Most of the time it is very difficult to identify the allergen. There exists a wide gap between knowledge, actual practice and the recommended practice

leading to poor quality of life. Allergic rhinitis related knowledge includes understanding the cause, treatment options and prevention. A good attitude is reflected in a positive relationship with the doctor.<sup>4</sup> A good practice includes timely and appropriate management.<sup>5</sup> Understanding the knowledge, attitude and practices of patients with allergic rhinitis will help us in treating the patients in a better way, thereby improving their quality of life.

This study is aimed at identifying the knowledge, attitude and practice of the patient about allergic rhinitis and how knowledge and attitude reflects on their practices.

## METHODS

**Study place:** Shri Sathya Sai Medical College and Research Institute, Ammapettai, Kancheepuram district, Tamil Nadu.

**Study duration:** 1 year (January-2016 to December-2016).

**Sample size:** 100 patients.

**Study type:** Cross sectional study.

**Selection criteria**

**Inclusion criteria**

Patients of age >18 years; both sexes, presenting with classical symptoms of allergic rhinitis like sneezing, watery nasal discharge, nasal obstruction and signs of allergic rhinitis like pale nasal mucosa and hypertrophy of inferior turbinate were included in the study.

**Exclusion criteria**

Exclusion criteria were age <18 years; patients with chronic sinusitis.

**Questionnaire**

The general details of the patient like age, sex, education, occupation and family history were gathered. The questionnaire included questions to assess the knowledge, attitude and practice of the patient. The questionnaire was pretested and pre validated, after which appropriate changes were made. After explaining the purpose of the study, the questionnaire was read out to the patients and responses were noted.

**Data analysis**

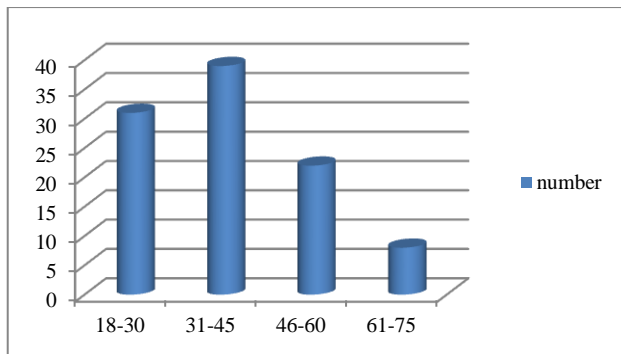
The data collected was compiled into an excel spread sheet, analysed and finally the data was presented in the percentage, tables and graph.

**RESULTS**

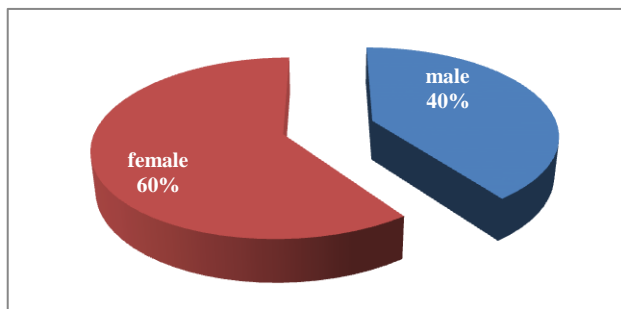
The study included 100 patients of which the age of the patient was ranging from 19-65 years. The maximum patients sampled were in the age group of 18- 45 years. (Figure 1). Most of the patients were females (60%), rest were males (40%) (Figure 2). About 48 patients gave family history of some form of atopy like bronchial asthma, atopic eczema or allergic rhinitis. About 52 patients had associated bronchial asthma, 20% had atopic eczema and about 27% had allergic conjunctivitis.

Most of the patients had poor knowledge about the possible causes for their symptoms, about its prevention, familial tendency and the treatment options.

Most of the patients believed that the medications if used for long duration can cause side effects and dependence. Most patients discuss very little with the doctor about the cause for the symptoms.



**Figure 1: Age distribution of cases.**



**Figure 2: Sex distributions of cases.**

**Table 1: Questions related to knowledge.**

Questions	Yes (%)	No (%)
1. Do you know the cause for your symptoms?	17	83
2. Do you know that nasal sprays can be used for treatment?	31	69
3. Do you know that your symptoms can be prevented?	10	90
4. Do you think that allergic rhinitis runs in families?	13	87
5. Is it contagious?	68	32

**Table 2: Questions related to attitude.**

Questions	Not at all (%)	A little (%)	Quiet a lot (%)
1. Are you worried about your symptoms?	15	76	9
2. Are you worried about the side effects of the medication if used for prolonged duration?		32	68
3. Are you worried about the drug dependence if used for prolonged duration?	12	18	70
4. Do you ask your doctor about the cause for your symptoms?	40	55	5

**Table 3: Questions related to practice.**

Questions	Within weeks	Within 6 months	Within a year	More than a year
<b>1. How long have you been symptomatic before you visited your doctor?</b>	10%	49%	35%	6%
	<b>Yes (%)</b>		<b>No (%)</b>	
<b>2. Do you visit your doctor every time you develop symptoms?</b>	7		93	
<b>3. Are you using steroid nasal sprays?</b>	30		70	
<b>4. Do you buy over the counter drugs or buy drugs using previous prescription?</b>	62		38	
<b>5. Do you avoid smoke and house dust?</b>	31		69	
<b>6. Do you strictly follow doctor's instructions?</b>	35		65	

Most patients postpone their first consultation at least by few months. Most of them do not regularly consult their doctor or strictly adhere their treatment guidelines.

When more than 50% of the patients know about the disease or follow a practice it was considered as adequate.

## DISCUSSION

This study was carried out to assess the knowledge, attitude and practice about allergic rhinitis. Our study showed a poor knowledge about the disease, treatment options. Effective management of allergic rhinitis includes better understanding of the triggers and the need for prolonged maintenance therapy.

Most of the patients were worried about the side effects and dependence on long term use of drugs. This explains patient's reluctance and fear in long term use of the drug. A good doctor patient relationship can help in improving the communication and imparting a better knowledge to the patient.

Patients should be encouraged to visit the physician at the earliest possible for better treatment. They should be strongly warned against self-medication which can be dangerous. Patient should be educated to avoid allergen.

In a study by Marple et al, patient's poor satisfaction with the medication leads to poor compliance and increase in need for over the counter drug.<sup>6</sup> This finding supports our study finding where majority of the people don't use the drug properly as instructed by the doctor and go for over the counter medication. This study also emphasises the need for greater understanding of patient's expectation to improve patient's compliance.

In study by Nolte et al, awareness on allergic rhinitis was low (32%) among undiagnosed patients and 68% on diagnosed patients.<sup>7</sup> Patient's awareness about self-care was low. This goes in favour of the finding in our study.

Health education about healthy home environment can improve their knowledge and practices regarding home environment. This was demonstrated in study by carrilo et al, where there was improvement in knowledge after receiving asthma related education.<sup>8</sup>

Developing allergic rhinitis in infancy is considered as a significant risk factor for developing asthma at a later age.<sup>9</sup> Both allergic rhinitis and asthma have common underlying factors. Education programs when designed should have this in mind and should emphasis on combined treatment for both.<sup>10</sup>

## CONCLUSION

The knowledge, attitude and practice was less in patients with allergic rhinitis. Inadequate knowledge and poor attitude can explain the poor practices. Patients with good knowledge can adhere to better practices. Educating the patients about the underlying cause, the need for avoidance of allergen and prolonged treatment for symptomatic improvement will help them in understanding their problem better. This will help them in adhering to the treatment guidelines.

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