



AN OBSERVATIONAL STUDY TO UNDERSTAND THE CORRELATION OF ALLERGIC RHINITIS AND FAMILY HISTORY

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Abstract: Allergic rhinitis (AR) is defined as inflammation of the inside lining of the nose that occurs when a person inhales something he or she is allergic to, such as animal dander or pollen etc. Allergic rhinitis is an atopic disorder in which there is nasal congestion, watery nasal discharge and sneezing (ICD 10 classification J30.9). Avoiding of allergens or desensitization against allergen is ideal treatment but not always possible. This is a study the correlation of Family History in patients with Allergic Rhinitis. Thirty cases of Allergic Rhinitis cases of both sexes and all age groups were included for the study. Allergic Rhinitis has a significant genetic component, a positive family history of atopy. The present study suggests the importance of allergic history in family, in patients with Allergic Rhinitis. The result suggest out of 30 patients, 21 of them with family history of Allergic Rhinitis was having Allergic Rhinitis.

Index Terms : Allergic Rhinitis, Family History, Homoeopathy, Medicine.

INTRODUCTION

It is an IgE- mediated immunologic response of nasal mucosa to air-borne allergens and is characterized by watery nasal discharge, nasal obstruction, sneezing and itching in the nose. Seasonal Symptoms appear in or around a particular season when the pollens of particular plant, to which the patient is sensitive, are present in the air. Perennial Symptoms are present throughout the year. In Homoeopathic treatment has no specific for any disease by name, but it has a true specific for each individual case of disease.¹ In cohorts of British children born in 1958 and 1970, the prevalence of allergic rhinitis increased from 12% to 23% by the time the children were 16 years old.² Approximately 400 million people worldwide, according to the World Allergy Organization, have allergic rhinitis, but the majority of them do not receive prompt diagnosis or treatment. The phenotypes of allergies are caused by numerous gene interactions. Apparently controlling the inflammatory process in atopy are genes on chromosomes 5, 6, 11, 12, and 14.

It's typical for there to be a family history of related or similar complaints.³ Like other atopic diseases, in allergic rhinitis multiple family members often are affected. The type of atopic illness or particular sensitivities don't appear to be heritable as simple genetic traits, despite the genetic influences on total IgE levels and allergen sensitization being suggested. Even though there have been many studies on the genes linked to asthma, there have only been a few on the genes linked to allergic rhinitis. These studies have only focused on single nucleotide polymorphisms and family genome wide association studies. According to studies on mice, increased DNA

methylation is one mechanism by which a maternal diet high in methyl donors can increase the offspring's susceptibility to allergic inflammation.⁴

In comparison to children with no family history of atopy, children with a positive history of their parents' atopy were more likely to experience respiratory or dermal symptoms of atopy (51% of the time) than those without. There was no relationship between the clinical course of atopic symptoms and atopy in the family. The importance of date of birth, nasal eosinophilia, and serum IgE levels appeared to be relatively low in atopic dermatitis despite the fact that these variables were related to the emergence of respiratory atopies.⁵

According to an Indian study, allergic rhinitis was more common in children between the ages of 6-7 and 13-14, with a prevalence of 11.3 percent and 24.4 percent, respectively. In India, 20% to 30% of the population is thought to be affected by one or more of these allergic diseases. Antihistamines, intra nasal steroids, and immunotherapy are examples of popular traditional medications. But it has been discovered that their only effect is to suppress. The only action most conventional doctors recommend—and one that is actually challenging in daily life—is avoiding allergens. AR can only be partially treated by the traditional medical system.⁶ Since the prevalence of allergic disease are increasing day by day, there is need of an anti-miasmatic remedy in correct potency and dose mainly in the form of intercurrent.⁷

The prescribing of a true anti psoric remedy covered all the phenomena of disease, both its pathological and symptomatic expression, even the inherent primitive unknown malady. Miasmatic predisposition is not merely a matter involving DNA, since diseases acquired during life can transit their influences to subsequent generation. Hahnemann miasmatic theories have been largely misunderstood, ignored, or thoughtlessly transformed into routine for clearing a case of miasm.⁸ The symptoms of post-COVID-19 syndrome range from minor ones like fatigue, fever, and headache to more serious ones like autoimmune illnesses or multi-system inflammatory syndrome. Medicines like Aconite Napellus, Arsenicum Album, Bryonia Alba, Gelsemium Semipervirens, Rhustox, Eupatorium Perfoliatum, Ipecacuanha, Belladonna. Camphora may be used depending upon the symptoms similarities.⁹

OBJECTIVE OF THIS RESEARCH:

To understand the correlation of Allergic Rhinitis and Family History.

MATERIALS & METHODS:

Source of data:

A cohort of 30 cases was selected from patients diagnosed with Allergic Rhinitis who visited the Outpatient Department, Inpatient Department, and Rural Health Centres affiliated with Sarada Krishna Homoeopathic Medical College and Hospital, Kulasekharam.

Selection of sample: 30 participants were selected using purposive sampling

Data collection method:

A purposive sampling approach was employed to select 30 patients diagnosed with Allergic Rhinitis from the Outpatient Department, Inpatient Department, and Rural Centres affiliated with Sarada Krishna Homoeopathic Medical College. Detailed case information was documented using standardized and pre-structured formats provided by Sarada Krishna Homoeopathic Medical College. The family history of the patient was collected and the improvement of the symptoms were assessed using Rhinitis Control Assessment Score.

Inclusion criteria: Patients of all ages and both sexes are taken

Disqualifying factors: Patients with other systemic conditions

Outcome assessment: The correlation of Allergic Rhinitis with Family History was understood and the effectiveness of homoeopathic treatment in Allergic Rhinitis assessed using Rhinitis Control Assessment Score

Statistical techniques and data analysis:

Data are represented in pie charts, bar diagrams and tables and were analyzed using paired t-test. The data is represented in bar chart, table and columns.

OBSERVATION & RESULTS:

Categorization by Age:

An average of thirty cases have been analysed and on analysis it is estimated that the predominance of age group affecting patients with Allergic Rhinitis is 11-20 and 21-30 (10 cases), 41-50 years (5 cases), 1-10 years and 31-40 years (2 cases), 51-60 years (1 case).

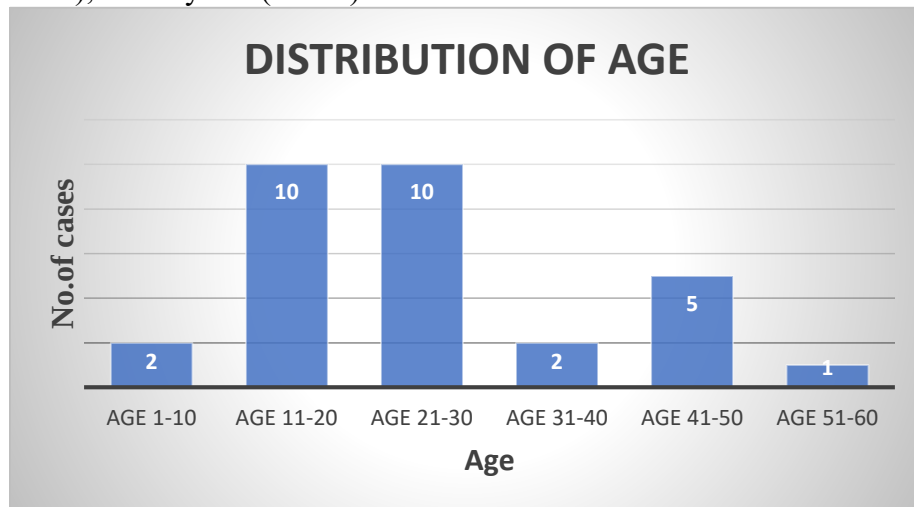


Figure 1: Distribution based on Age

Categorization by Gender:

On analyzing the 30 cases the prevalence of gender being affected with Allergic Rhinitis is 22 cases were females and only 8 cases were males.

Distribution by Triggering Factors:

On analyzing the cases, 20 cases triggering factor resulting in Allergic Rhinitis was dust exposure, 19 cases in the early morning, 12 cases due to cold exposure and in night, 7 cases reported to have Allergic Rhinitis due to cold drinks.

Categorization based on Family History:

In 30 cases, 21 patients had a family history of Allergic Rhinitis, 5 patients with Bronchial Asthma, 2 cases with Sinusitis, 1 case with Inguinal Hernia, Bronchitis, Diabetes Mellitus, and Eosinophilia.

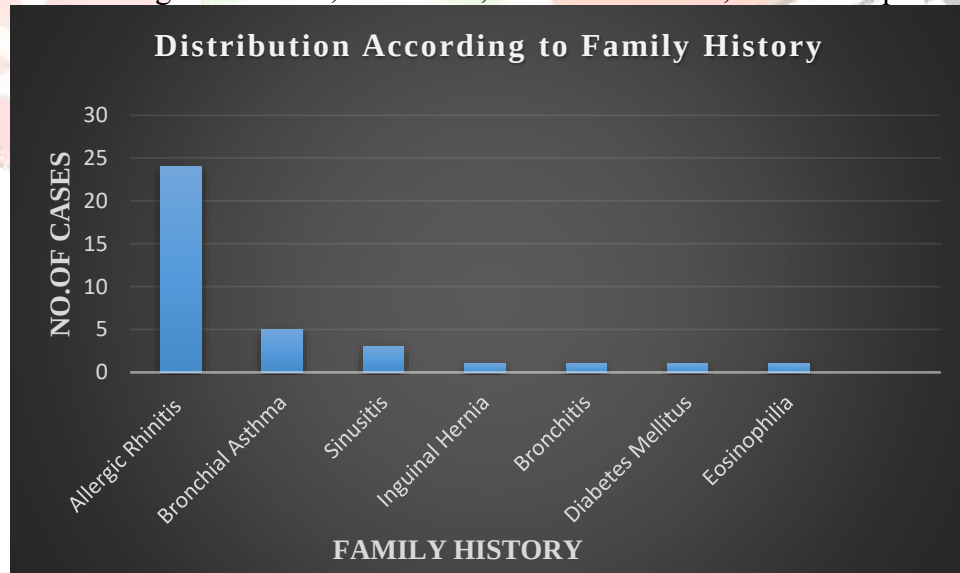


Figure 2: Distribution According to Family History

Categorization based on Medicine Prescribed:

On analyzing the patients affected with Allergic Rhinitis the most commonly prescribed medicine was Calcarea carbonicum, 6 cases with Sulphur, Arsenicum album with 5 cases, Natrum muriaticum and Sepia officinalis with 3 cases, 2 cases with Pulsatilla nigricans, Dulcamara, Hepar Sulphuris, Nux vomica and Silicea terra with 1 case.

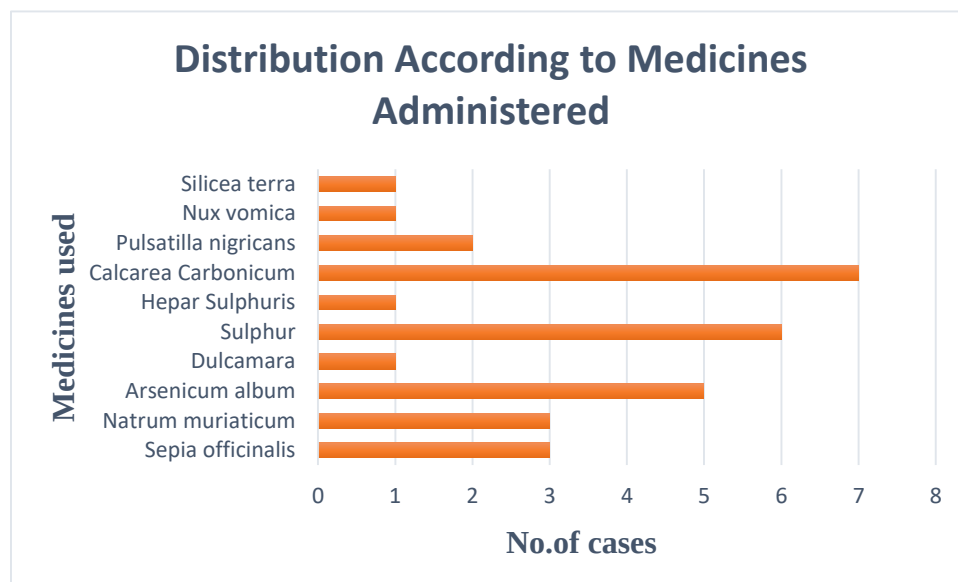


Figure 3: Distribution According to Medicines Administered

Distribution based on Potency Selection:

On analyzing the patients, and the most commonly used potency was 200 which was prescribed for 14 cases, followed by 0/1 potency 4 cases, 0/3 potency 3 cases, 1M potency, 2 cases, 30 and 0/7 for 1 case respectively.

Allocation of cases based on pre & post intervention score:

The improvement of all the 30 cases were analyzed using Rhinitis Control Assessment Scoring Chart before and after the administration of homoeopathic medicines. As it was a retrospective study the duration of treatment varies from one case to another. Out of the 30 cases, 13 cases recovered after the treatment, and the remaining 17 cases showed improvement in scoring chart.

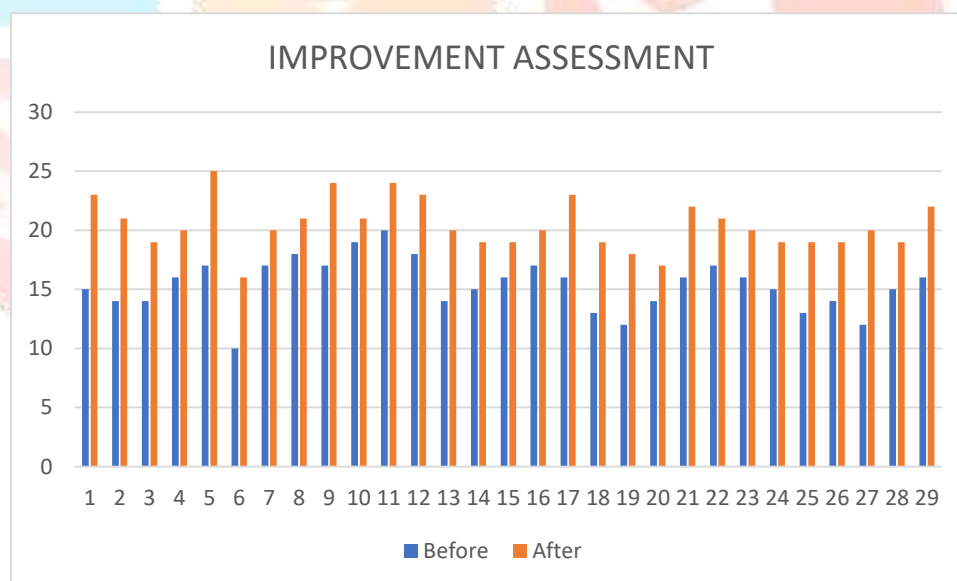


Figure 4: Allocation of Cases based on Improvement Assessment

DISCUSSION:

After this study results suggest that in an average of thirty cases have been analysed and on analysis it is estimated that the predominance of age group affecting patients with Allergic Rhinitis is 11-20 and 21-30. In a previous study, where the allergic manifestation is seen, 57.5% were between the age group 19-40, followed by 25% 41-62 years.⁷

On analyzing the 30 cases the prevalence of gender being affected with Allergic Rhinitis females were more than males. In a similar study in which allergic rhinitis and allergic conjunctivitis were present among 40 patients 27 were females.⁷

On analyzing the cases, the most common triggering factor, for which 20 cases were affected by Allergic Rhinitis due to dust exposure, 19 cases in the early morning, 12 cases due to cold exposure and in

night, 7 cases reported to have Allergic Rhinitis due to cold drinks. In a similar study of 100 patients the most common exciting and maintaining cause was exposure to dust, change of weather, exposure to cold and in the morning.⁴

From a total of thirty cases, majority of 21 patients had a family history of Allergic Rhinitis, 5 patients with Bronchial Asthma, 2 cases with Sinusitis, 1 case with Inguinal Hernia, Bronchitis, Diabetes Mellitus, and Eosinophilia. In a previous study conducted on 100 patients, 35 patients had respiratory complaints in their family such as Allergic Rhinitis, Bronchial Asthma, and Chronic Sinusitis, which shows a hereditary predisposition in the development of Allergic Rhinitis in about one-third of the cases.¹²

On analyzing the patients affected with Allergic Rhinitis the most commonly prescribed medicine was Calcarea carbonicum, 6 cases with Sulphur, Arsenicum album with 5 cases, Natrum muriaticum and Sepia officinalis with 3 cases, 2 cases with Pulsatilla nigricans, Dulcamara, Hepar Sulphuris, Nux vomica and Silicea terra with 1 case. In the findings of an observational case study, the mineral group homoeopathic medicine Calcarea Carbonicum was beneficial in treating the case as well as reduction of Ig G level.¹¹ In a similar study suggest that Sulphur and Arsenicum album is very effective against Allergic Rhinitis.¹²

On analyzing the patients, and the most commonly used potency was 200 which was prescribed for 14 cases, followed by 0/1 potency 4 cases, 0/3 potency 3 cases, 1M potency, 2 cases, 30 and 0/7 for 1 case respectively. In a similar study where the commonly used prescription was 200 and 1M potency in acute expression and constitutional remedies were prescribed in 30 and 200 potency.¹² Out of the 30 cases, 13 cases recovered after the treatment, and the remaining 17 cases showed improvement in scoring chart.

CONCLUSION:

The conclusion states that the retrospective study on the correlation of Allergic Rhinitis and Family History was found to be highly beneficial. This study showed that majority of patients with allergic rhinitis were having an associated family history of Allergic Rhinitis, and also identified other diseases. The analysis of the cases based on purposive sampling of retrospective cases is only present. Further studies including large number of cases of Allergic Rhinitis is essential to justify the relation of family history.

Conflict of interest: Nil

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