



ROLE OF ARSENICUM ALBUM IN GIVING SYMPTOMATIC RELIEF IN PATIENTS OF ALLERGIC RHINITIS

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ABSTRACT

Background- Allergic rhinitis affects around 10-25% of population in world, which is allergic disease, Allergic rhinitis is an air way disease and can be accompanied by asthma, otitis media, nasal polyp, sinusitis, airway infection etc. Indoor and outdoor environmental causes include , exposure to seasonal and perennial allergens like dust, pollens, seed etc. There is less amount of published literature regarding the clinical use of Arsenicum album in cases of Allergic rhinitis hence this particular topic was chosen. This study was aimed to investigate whether the homoeopathic medicine Arsenicum album in different potencies 30C , 200 C , 1 M has effect in reducing symptoms in Allergic rhinitis patients or not.

Method- Prospective non randomised clinical trial, single arm, single blind study conducted at outpatient department of Bharati Vidyapeeth Deemed University Homoeopathic College & Research Centre, Katraj, and Pune. Total 33 patients (Male & Female) age group 15-59 years were enrolled in this study. Out of which, three patients were dropped out and 30 patients completed their follow up.

Result- A significant reduction observed in symptoms of Allergic rhinitis patients before and after treatment and patients symptomatically relieved as well. Before treatment TNSS score was 12 ± 0.183 , after treatment TNSS score reduced to 2 ± 2.596 . Pre-test and posttest analysis was done by using Wilcoxon matched pair test

Conclusion- Homoeopathic medicine Arsenicum album produced significant effect in reduction of the symptoms in Allergic rhinitis patients. TNSS score was used for analysis of data before and after treatment score was taken. Symptomatic relief in seen patients but due to small sample size it could not possible to confirm which potency is giving excellent result.

KEYWORDS : Arsenicum album , Allergic rhinitis.

INTRODUCTION

Rhinitis is a diseased condition in which inflammation of nasal mucosa occurs due to migration of first line defence cells and second line defence cells hence it gives symptoms like congestion of nose , watery discharge from the nose , itching of the nose.^[1]

Allergic rhinitis is an illness in which there are episodes of watery nose, sneezing, and congestion of nose. There are various types of rhinitis, seasonal rhinitis, perennial rhinitis, which causes immediate hypersensitive reaction in mucosa of nose. Seasonal Allergic rhinitis is caused by environmental climatic change, pollen, flowers, weeds etc. Perennial Allergic rhinitis has reaction to antigens which are formed from dust, spore or animal dender, chemical irritation.^[1]

The main cause of Allergic rhinitis is susceptibility of allergen. There is infiltration of leucocytes like basophils, eosinophil, macrophages, neutrophils, due to IgE mediated immune response.^[2]

Seasonal type has sudden episode of profuse watery nose, nose obstruction , sneezing which last for few hours and accompanied by watery eyes , smarting of eyes. perennial type has similar but less severe and more continues. Skin hypersensitivity test are useful for the diagnosis of disease. Allopathic management used for Allergic rhinitis are, Antihistamines such as loratadine, sodium cromoglicate nasal spray, steroid nasal spray.^[1]

Allergic rhinitis affects around 10-25% of population in world, which is allergic disease, Allergic rhinitis is an air way disease and can be accompanied by asthma, otitis media, nasal polyp, sinusitis, airway infection etc. Indoor and outdoor environmental causes include, exposure to seasonal and perennial allergens like dust, pollens, seed etc.^[3]

Prevalence of Allergic rhinitis has increased in industrial areas in past 10 years many factors are responsible like exposure to allergen , climatic changes , life style , pollution , irritants , chemicals , change in diet , stress. Genetic background that is family history is most important point in development of Allergic rhinitis. Studies showed genetic factors contribute to development of IgE mediator immunity disease. Study by Edfors –Lubs in 1971 showed there is a hereditary cause for Allergic rhinitis conditions by investigating skin test , serum IgE level and bronchial reaction to metacholine Released IgE mediators are responsible for allergic complaints which is immunological mechanisms. Th1 and Th2 cells regulate IgE synthesis, infiltration of T lymphocytes in mucosal and epithelium leads to inflammation in tissue.^[3]

Common chronic upper respiratory tract medical conditions are allergic rhinitis and sinusitis. As both conditions occurs simultaneously or coexist together, condition can be called allergic rhinosinusitis. The doubt arise whether all allergic patients are immune deficient in some way or not. So using candidate gene and a whole-genome scan , genetic evaluation were done by taking only samples of diagnosed allergic patients. Understanding the pathogenesis and the causative factors is important and is responsible for increasing mucosal inflammation which also help in development of new diagnosis cases and can be used as therapeutic tool.^[4]

Allergic rhinitis shows nasal itching, nasal congestion, rhinorrhea and sneezing such symptoms. For this condition treatment like nasal spray, anti histamines, nasal decongestants are given with prescription. It only supports for acute episode and again relapse happens.

We can manage Allergic rhinitis with the help of Homoeopathic natural system which helps body's healing capacity Many

Homoeopathic allergic medicines are marked to be natural, safe, and effective without causing any other adverse effects. Every Allergy sufferer experiences his or her allergy in different way. Nasal discharge may be bland, burning, or itching. And we select a medicine that is matched to the symptom or Allergy of patient.

Modern medicines gives short term relief or no significant relief sometimes and have side effects too.

By taking proper case history, observation of symptoms, we Homoeopath can choose proper medicine which gives early and long lasting relief to patients. By giving right Homoeopathic medicine the tendency to react to allergens reduces, patients gets adapted to seasonal allergens as their immunity strengths.^[5]

Impact on life of patient suffering from Allergic rhinitis are sleep disturbance due to intake of sedatives leads to sleepiness which leads to day time sleep and causes impact to daily life activity. This also leads to disturbance in work routine and h1-antihistamine showed less work productivity.the national health interview survey showed that Allergic rhinitis patients have lost work days this leads to less productive work and impact financial status. In children speed of cognitive processing, psychomotor speed, ability to sustain attention, verbal learning, memory and mood are disturbed.^[6]

In the Aphorism of 73 of organon of medicine of 5th and 6th edition Dr. Hahnemann explained about the acute exacerbation of chronic diseases and Allergic rhinitis falls under the classification of acute exacerbation of chronic diseases. As Allergic rhinitis can be achronic condition but acute episodes are seen throughout the year with change in environment, life style, season and hence management of acute episode is important.^[7]

According to J.H. Clarke is also used in cases like, in Asthma , patient is unable to lie down ,his complaints get worse in midnight, respiration is wheezing , darting pain in right lung. In cholera vomiting of brown black mixed with blood, bile, and green mucus. Pain in stomach from slightest drink and food, burning pain in abdomen. In diarrhoea violent diarrhoea with repeated evacuation. After eating or drinking anything patients suffered from diarrhea. Tenesmus with emission of mucus from the anus. Prolapse of rectum with itching pain as if excoriated the part. In Endometritis, from the uterus discharge of blood between the periods. Pain worse by least exertion, which causes great fatigue. In pelvis stitching type of pain which extends towards thighs. There are other clinical conditions also present where Arsenicum album can be useful such as, Anemia, Kidney diseases, Gastric ulcer, Intermittant fever, Leucorrhora Pneumonia, Rheumatic gout, Sciatica , Lung affections.^[8]

So as mentioned above, there are a lot of uses of Arsenicum album. The main objective of this study is to evaluate efficiency of Homoeopathic medicine Arsenicum album in giving symptomatic relief to the patients of Allergic rhinitis.

Arsenicum album commonly known as Acidum arsenicum , Arsenious acid , White arsenic; Acide arsenieux, Arsenic blanc; German: Arsenige Saure.^[9]

During this study various repertories were referred like kent Repertory, Murphy's Repertory, Boger synoptic key, Boger Boennighausen characteristic and Repertory for selection of remedy.

There is less amount of published literature regarding the clinical use of Arsenicum album in cases of Allergic rhinitis hence this particular topic was

METHODOLOGY

Theoretical study: Theoretical study of this topic was done from various books, Homoeopathic journals, research journals, researches and authentic internet search through websites, Google scholar, Pubmed, etc.

Clinical study: 30 patients with Allergic rhinitis of both sexes, of age group 15-59 years were enrolled in the study.

Case definition: Cases presenting with complaints of Allergic rhinitis of both sexes involving age group from 15-59 years.

Study setting: This study was conducted at outpatient department of Bharati Vidyapeeth Deemed University Homoeopathic College & Research Centre, Katraj, Pune. It is a non-randomized, single blind clinical study to see the effect of homoeopathic medicine Arsenicum album in patients with Allergic rhinitis in the age group of 15-59 years.

Intervention: Medicine was administered to all patients in 30 size globule half an hour before meal orally on tongue, no water intake for at least 15 – 20 min. Drug was stored in Bharati Vidyapeeth Homoeopathic Hospital pharmacy, Katraj, Pune as per the rules of Pharmacopoeia (HPI), under appropriate temperature. Log no. & batch no. was maintained. In cases where medicine was not necessary, only placebo was prescribed, in the form of sugar of milk globules. Sampling procedure: Patients were enrolled in this study from Bharati Vidyapeeth Homoeopathic Hospital, peripheral OPD, Various rural & urban camp series, OPD and IPD from 2020-2021 (Approximately 52 weeks).

Follow up:

Each case was followed up for approx 3 months in cases of Allergic rhinitis All the patients were duly followed up and details of the symptomatic and clinical changes were recorded and prognoses were studied.

- Follow up differed from patient to patient.
- Standard Follow-up was prepared giving details.

Criteria of Assessment :

Assessment criteria for symptoms of Allergic rhinitis:- Assessment will depend mainly on the basis of relief in the symptoms of condition. Total Nasal Symptom Scores (TNSS) Each symptom (sneezing, congestion, itching, and rhinorrhea) is graded from 0-3 by the patients during the follow up.

Score	Symptoms
0 = None	No symptoms evident
1 = Mild	Symptom present but easily tolerated
2= Moderate	Symptom present but easily tolerated
3 = severe	Symptom hard to tolerate; interferes with daily activity

Inclusion Criteria: -

- All the patients presenting with Allergic rhinitis
- Patients of both sexes & age group between 15-59 yrs
- The ability to give informed consent & comply with study procedures and Legal capacity.

Exclusion criteria: -

- Patients who require emergency medical intervention or severe Co- morbidities.
- Nasal abnormalities causing obstruction
- Patient without written consent.
- Patients with any systemic illness.
- Simultaneous participation in other clinical studies or completion of participation in a study less than 6 months prior.

Outcome Measures:- The primary outcome measure is Total nasal symptom score after the period of the study. These were compared with the initial score, and the difference analyzed using statistical tests, to find the efficacy or otherwise of the

treatment. The statistical analyses were conducted for TNSS by using the Wilcoxon matched pair test. The test helps to establish whether the changes observed before and after treatment were significant or not

OBSERVATION AND RESULT

Total 33 patients (n=30) were selected based on the age group of 15-59 years. Out of which 22 were male (73.33%) & 8 were female (26.67%) according to gender wise distribution. The average age of the patient was 33.00 years (mean age of Male patients = 37.00 and mean age of female patients 31.55). Mean of TNSS before treatment = 12± 0.183 Mean of TNSS after treatment= 2± 2.596

Table: GENDER WISE DISTRIBUTION:-

Gender	F	%
Male	22	73.33%
Female	8	26.67%

Table: Distribution of patients according to Total Nasal Symptom Scores (TNSS)

Allergic rhinitis	TNSS Score	Before Treatment		After Treatment	
		F	%	F	%
No complaints	0	0	0.00%	0	0.00%
Mild complaints	1-4	0	0.00%	27	90.00%
Moderate complaints	4-8	0	0.00%	0	0.00%
Severe complaints	8-12	30	100%	3	10.00%

Table: Descriptive statistics of TNSS score before and after treatment

TNSS Score	Median ± SD	Z- value	p- value	Decision
Score before treatment	12± 0.183	4.7821	0.000**	Reject H ₀
Score after treatment	2± 2.596			
Difference	10± 2.591			

Test used: Wilcoxon Matched Pairs Test, **: Highly Significant Difference, Z-value:

Test Statistic value

Total nasal symptom score of these patients were statistically analyzed by using Wilcoxon matched pair test, which showed significant reduction in the total nasal symptom score in the sample group at the end of 10-12 weeks of study (P value 0.0000) after applying the test. Before treatment mean of TNSS were 12± 0.183 after treatment Mean of TNSS were 2± 2.596 Mean of difference in TNSS was 10± 2.591 after 12 weeks of treatment (P value <0.0000). This means that there was a significant reduction of the TNSS of Allergic rhinitis patients after treatment.

DISCUSSION

The present study was initially aimed to investigate the effectiveness of the Homeopathic medicine Arsenicum album in the management of cases of Allergic rhinitis between the age group 15-59 years. Since it was a single arm study, only one group was involved in this study without any control group. Many researches have been done in Homeopathic system on Allergic rhinitis but very little work has been done on individual homeopathic medicine Arsenicum album. Therefore single remedy Arsenicum album was selected for this study. It has got action on Respiratory system and help in reduction of symptoms of Allergic rhinitis.

In this study 33 cases (male & female) of Allergic rhinitis patients. Three patients dropped out from this study after 1 follow up while rest 30 patients completed the study. They were subjected for 10-12 weeks of treatment with homeopathic medicine Arsenicum album after proper case taking. They were administered Arsenicum album and the TNSS scores before and after the treatment was evaluated, which showed a

positive effect on the Allergic rhinitis patients in the study sample. This effect was demonstrated by the results of the statistical analysis using Wilcoxon matched pairs test, which manifests that the before treatment and after treatment scores of TNSS are indeed, different. Improvement was categorised in mild, moderate, marked; wherein mild improvement is seen in 10% of population, marked improvement in 90% of population.

CONCLUSION

In this research study 30 patients completed this study. The result indicates that there was reduction in symptoms in cases of Allergic rhinitis patients. Treatment with Arsenicum album 200C has produced an early, sustained and significant reduction in symptoms and it has also proven as safe and effective in treatment of Allergic rhinitis. Therefore Arsenicum album is a good choice as a specific remedy for reducing the symptoms in Allergic rhinitis patients. Since it is a small sample study, research should be done in future considering large sample & extending the duration of the study. Further studies with randomized placebo control group can provide a greater resource for proving that Arsenicum album is effective in treatment of Allergic rhinitis.

CONFLICT OF INTEREST

The authors have no conflict of interest among them regarding the research.

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