

## Role Of Rhus Toxicodendron in Allergic Rhinitis: A Homoeopathic Case Report

**Dr. Anurag Yadav<sup>1\*</sup>, Dr. Sant Kumar Singh<sup>2</sup>, Dr. Ashutosh Gupta<sup>3</sup>, Dr. Prem Sagar<sup>4</sup>, Dr. Anand Kumar Jaiswal<sup>5</sup>**

<sup>1</sup>PhD Scholar, Sri Ganganagar Homoeopathic Medical College, Hospital & Research Institute, Tantia University, Sri Ganganagar, Rajasthan, Email: aaryavnanu@gmail.com

<sup>2</sup>Professor & Research Supervisor Sri Ganganagar Homoeopathic Medical College, Hospital & Research Institute, Tantia University, Sri Ganganagar, Rajasthan

<sup>3</sup>Medical Officer, Rajkiya Homoeopathic Dispensary Ramya, Basti, Email: ashutoshbhms@gmail.com

<sup>4</sup>Lecturer Dept of HMM, Shaheed Raja Hari Prasad Mall State Homoeopathic Medical College, Barhalganj, Gorakhpur, Uttar Pradesh Email: shc.drsagar@gmail.com

<sup>5</sup>Lecturer Dept of FMT State BKM College & Hospital, Deokali, Ayodhya dr.anandjaiswal101@gmail.com

**\*Corresponding Author:** Dr. Anurag Yadav

<sup>\*</sup>PhD Scholar, Sri Ganganagar Homoeopathic Medical College, Hospital & Research Institute, Tantia University, Sri Ganganagar, Rajasthan, Email: aaryavnanu@gmail.com

### ABSTRACT:

Allergic rhinitis (AR) represents a global health problem and can affect approximately 400 million people worldwide. It is a most common chronic condition globally challenging to treat. Allergic rhinitis (AR) is caused by immunoglobulin E (IgE)-mediated reactions to inhaled allergens. The prevalence of AR has increased over the years along with increased urbanization and environmental pollutants. AR co-occurs with asthma and conjunctivitis causing major burden and disability worldwide. The pathophysiology of AR is critical, Risk factors include inhalant and occupational allergens & genetic factors. AR impairs quality of life, affects social life, school and work. Here is a Case Report of 35 years old, female Bhagwati suffering from Allergic Rhinitis for 4 years treated successfully with Homoeopathy.

**KEYWORDS:** Allergic Rhinitis, Allergens, Eosinophils, Homoeopathy.

### INTRODUCTION:

Allergic Rhinitis (AR) is a condition where the nasal passages become inflamed due to allergic reactions to substances in the air. These allergens include pollen, dust mites, mold, or pet dander that causes symptoms like Congestion, itching, rhinorrhea, and sneezing, itchy, watery eyes, and redness. There are two main types of AR:

- Seasonal Allergic Rhinitis (SAR): Occurs during specific times of the year when airborne allergens like pollen are high, typically in the spring or fall.
- Perennial Allergic Rhinitis (PAR): Occurs year-round, usually caused by indoor allergens like dust mites or pet dander.

AR is IgE-mediated early and late-phase hypersensitivity responses. Severe allergic rhinitis has been associated with significant impairments in quality of life, sleep and work performance.<sup>[1,2]</sup> In the past, allergic rhinitis was considered to be a disorder localized to the nose and nasal passages, but current evidence indicates that it may represent a component of a systemic airway disease involving the entire respiratory tract. Evidence has shown that allergen provocation of the upper airways not only leads to a local inflammatory response, but may also lead to inflammatory processes in the lower airways, and this is supported by the fact that rhinitis and asthma frequently coexist. Therefore, allergic rhinitis and asthma appear to represent a combined airway inflammatory disease. In allergic individuals, the T cells infiltrating the nasal mucosa are predominantly T helper 2 (Th2) in nature and release cytokines (e.g., interleukin [IL]-3, IL-4, IL-5, and IL-13) that promote immunoglobulin E (IgE) production by plasma cells. Crosslinking of IgE bound to mast cells by allergens, in turn, triggers the release of mediators, such as histamine and leukotrienes, that are responsible for arteriolar dilation, increased vascular permeability, itching, rhinorrhea, mucous secretion, and smooth muscle contraction in the lung.<sup>[3,4]</sup>

### PATHOPHYSIOLOGY:

Type I hypersensitivity is an allergic reaction mediated by IgE antibody in response to allergens occur rapidly, usually within 20 min after allergen exposure, and is characterized by activation of mast and inflammatory cells as well as their infiltration in tissues.[5] The allergic response in AR can be divided into two phases i.e., the early and late phase. The early phase starts within 20 min after exposure to harmful allergens. This allergen-specific IgE binds to high-affinity Fc receptor for IgE (FcεR) present on mast cells, leading to mast cell activation [6]. mast cells causes release of allergic mediators consisting of histamine, proteases and lipid mediators such as leukotriene (LT) C4, and prostaglandin D2 (PGD2) that cause vascular leak, bronchoconstriction, inflammation, and intestinal hypermotility.[7] After 4–6 h of allergens exposure, the late phase of allergic response is initiated. In this phase, nasal mucosal inflammation occurs with the influx and activation of a variety of inflammatory cells such as T cells, eosinophils, basophils, neutrophils, and monocytes into the nasal mucosa.[8]

### **Risk Factors**

Several factors increase the risk of developing AR:

- Family History: People with a family history of allergies are more likely to develop AR.
- Exposure to Allergens: Regular exposure to allergens like pollen, dust, and mold increases the risk.
- Other Allergic Conditions: Having other allergic conditions such as asthma or eczema also raises the likelihood.
- Environmental Factors: Living in areas with high pollution or poor air quality can increase susceptibility to AR. [9,10]

### **Diagnosis**

Diagnosing AR involves multiple steps:

- Medical History and Symptom Assessment: The doctor will inquire about symptoms, such as sneezing, itching, and congestion, and check for seasonal variations.
- Allergy Testing: Skin prick tests or blood tests are used to detect allergen-specific IgE antibodies.
- Other Tests (if needed): Sometimes nasal endoscopy or rhinomanometry (measuring nasal airflow) is performed to assess the extent of the inflammation or obstruction. [9,10,11]

### **Treatment Options**

AR treatment focuses on reducing symptoms and improving quality of life. Common approaches include:

- Allergen Avoidance: Reducing exposure to allergens, such as using air purifiers and avoiding high-pollen areas.
- Medications:
  - Antihistamines: Block the effect of histamines, reducing sneezing and itching.
  - Intranasal Corticosteroids: These are the most effective at controlling inflammation and relieving all symptoms.
  - Decongestants: Help relieve nasal congestion but are only recommended for short-term use.
  - Leukotriene Receptor Antagonists: Used when other medications are ineffective.
  - Mast Cell Stabilizers: Prevent the release of histamine from mast cells.
  - Nasal Saline Irrigation: Rinsing nasal passages with saline to clear allergens.
  - Immunotherapy: Desensitizing the body to allergens through either injections (SCIT) or tablets/drops under the tongue (SLIT). [9,10,11]

**Case-** A case of 35 yr housewife came to OPD on 20/09/2023 with the complaint of recurrent Catching cold tendency, sneezing aggravated in morning, rainy weather, nasal watery discharge with lachrymation since 4 yr ailments from rainy weather

Modalities- Aggravation/ Amelioration- < morning,rainy weather,> summer.

Impact on everyday life- irritability

Associated complaint-headache

Family history- father- t2dm, mother- hypothyroidism

Previously diagnostic tests/therapy-

PERSONAL HISTORY

Patient is Chilly and Thirsty

Desire –Salt Cold Drink

Aversion- Oily food

Bowel- Constipated, Hard Stool

Urine- 5D/3N duration

Perspiration- Scanty

Sleep- Sleep disturbed, left sided

Dream- Daily routine

**MENSTRUAL HISTORY:** Regular, Character- bright red, clotted sometimes, pain in abdomen during menses.

**OBSTETRIC HISTORY:** G<sub>1</sub>P<sub>1</sub>A<sub>0</sub>

**MENTAL GENERAL:** Patient are introvert, angered easily but loves the Company with average Memory, Weeps Easily and weeping amelioration, restlessness even she gets up from the chair several times while taking case.

Irritable

Contradiction- intolerance

Consolation- aggravation

**GENERAL EXAMINATION:**

- Height- 160 cm
- Weight- 57 kg
- Temperature - Afebrile
- Pulse rate – 80/min
- Blood pressure –120/80 mmHg
- Respiratory Rate- 18/ min
- Lymphadenopathy- Absent
- Others-pallor,icterus, cyanosis, clubbing,oedema, - Absent

**SYSTEMIC EXAMINATION:**

- CNS- Conscious, oriented
- CVS - S1 S2 +
- RS – B/L chest clear
- Genito-urinary System- NAD
- GIT- Soft, non-tender

DIAGNOSIS- Allergic Rhinitis

**REPERTORIAL TOTALITY:**

- a) Company desire for
- b) Contradiction intolerance
- c) Consolation aggravation
- d) Anger easily
- e) Irritability
- f)Introvert
- g) Restlessness
- h) Chilly
- i)Thirsty
- j)Constipated
- k) Running nose
- l)Rainy weather aggravation
- m) Summer amelioration

**MIASMATIC DIAGNOSIS:** Psora-syphilitic

**FINAL REMEDY:** Rhus Toxicodendron 200, 1 dose

SL 30 4pills TDS For 15 days

**PRESCRIPTION:** Rhus Toxicodendron 200, 1 dose

SL 30 4pills TDS For 15 days

**FOLLOW –UP:**

Follow Up- Date	Symptoms presented	Prescription	Remark
-----------------	--------------------	--------------	--------

02/06/23	Runny nose++ Morning sneezing++ Lachrymation+ Headache++	Rhus Toxicodendron 200, 1 dose SL 30 4pills TDS For 15 days	No Change
27/06/23	Runny nose+ Morning sneezing+ Lachrymation+ Headache+	SL 30 For 15 days	Mild improvement
15/07/23	Runny nose+ Morning sneezing- absent Lachrymation- absent Headache- absent	Rhus Toxicodendron 200, 1 dose SL 30 4pills TDS For 15 days	Moderate improvement
02/08/23	Runny nose- absent	SL 30 For 15 days	Moderate improvement
25/08/23	Morning sneezing- absent	Rhus Toxicodendron 200, 1 dose SL 30 4pills TDS For 15 days	Moderate improvement

### Discussion-

The remedy Rhus Toxicodendron is selected because it covers symptoms like sneezing aggravated in rainy weather amelioration in summer (by warm, dry weather). Other than this the patient has weak memory, weeping tendency, extreme restlessness, consolation aggravation & contradiction intolerance and thermal is chilly & thirsty. All these symptoms made the medicine Rhus Tox the choice for remedy.

### Conclusion-

Above case shows the effectiveness of the homoeopathic medicine in treatment of allergic rhinitis. Homoeopathy plays a major role in the management of allergic rhinitis with a check on subsequent recurrence of episodes in terms of frequency, duration and intensity. Proper administration of the indicated constitutional remedy facilitates in permanent restoration of health and reduces the chances of recurrence significantly. Well- designed studies are required to establish the long-term clinical effectiveness and efficacy of homoeopathy in treating the condition, Allergic Rhinitis as only single case report are not conclusive.

### REFERENCE-

- Optimal management of allergic rhinitis. Scadding GK. Arch Dis Child. 2015; 100:576–582. doi: 10.1136/archdischild-2014-306300. [DOI] [PMC free article] [PubMed] [Google Scholar].
- Allergic rhinitis therapy decisions during a routine consultation: a multicenter, cross-sectional survey. Gálffy G, Emmeluth M, Koltun A, Kopietz F, Nguyen DT, Kuhl HC. J Asthma Allergy. 2021; 14:335–345. doi: 10.2147/JAA.S291747. [DOI] [PMC free article] [PubMed] [Google Scholar]
- Small P, Frenkiel S, Becker A, Boisvert P, Bouchard J, Carr S, Cockcroft D, Denburg J, Desrosiers M, Gall R, Hamid Q, Hébert J, Javer A, Keith P, Kim H, Lavigne F, Lemièr C, Massoud E, Payton K, Schellenberg B, Sussman G, Tannenbaum D, Watson W, Witterick I, Wright E, The Canadian Rhinitis Working Group. Rhinitis: a practical and comprehensive approach to assessment and therapy. J Otolaryngol. 2007;36(Suppl 1): S5–27
- Dykewicz MS, Hamilos DL. Rhinitis and sinusitis. J Allergy Clin Immunol. 2010;125: S103–15.
- Gangwar RS, Friedman S, Seaf M, Levi-Schaffer F. Mast cells and eosinophils in allergy: close friends or just neighbors. Eur J Pharmacol. (2016) 778:77–83. doi: 10.1016/j.ejphar.2015.10.036
- Sani MM, Ashari NSM, Abdullah B, Wong KK, Musa KI, Mohamud R, et al. Reduced Cd4+ terminally differentiated effector memory T cells in moderate-severe house dust mites sensitized allergic rhinitis patients. Asian Pac J Allergy Immunol. (2019) 37:138–46. doi: 10.12932/AP-191217-0220
- Moon TC, Befus AD, Kulka M. Mast cell mediators: their differential release and the secretory pathways involved. Front Immunol. (2014) 5:569. doi: 10.3389/fimmu.2014.00569
- Sin B, Togias A. Pathophysiology of allergic and nonallergic rhinitis. Proc Am Thorac Soc. (2011) 8:106–14. doi: 10.1513/pats.201008-057RN
- Chapel H, Haeney M, Misbah S, Snowden N. Essentials of clinical immunology. John Wiley & Sons; 2013 Dec 17.
- Kasper D, Fauci A, Hauser S, Longo D, Jameson J, Loscalzo J. Harrison's principles of internal medicine, 19e. McGraw-Hill; 2015.

11. Ralston SH, Penman ID, Strachan MW, Hobson R, editors. Davidson's Principles and Practice of Medicine E-Book. Elsevier Health Sciences; 2018 Feb 2.