

Title: Allergic Rhinitis & It's Homoeopathic Approach

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ABSTRACT: Allergic rhinitis is an inflammation of the nasal mucosa induced by allergens and IgE-mediated inflammation. Allergic rhinitis symptoms include rhinorrhea, sneezing, nasal irritation, and nasal congestion. Asthma, atopic dermatitis, and nasal polyps are among the disorders connected to it. Around 20-30% of Indians suffer from allergic rhinitis, which should be treated according to ARIA standards, while asthma should be treated according to GINA guidelines. Allergen avoidance, medication, and allergen immunotherapy should all be used to treat allergic rhinitis. Intranasal corticosteroids are the most effective therapy for allergic rhinitis, and their secondary qualities are critical for patient compliance.

KEYWORD: Allergic rhinitis ,asthma ,nasal polyps, immunotherapy, homoeopathic management

INTRODUCTION

Sneezing, itching, watery nasal discharge, and a sensation of nasal blockage are all symptoms of allergic rhinitis, an IgE-mediated hypersensitivity illness of the nasal mucous membranes.

It is caused by pollens, dust, animal dander, molds, and other allergens in the air. It's a common chronic disease that affects ten percent to thirty percent of adults and up to forty percent of youngsters throughout the globe. As pollution in the environment continues to grow, allergic rhinitis has become a worldwide health issue.

There are two sorts of it: seasonal and perennial. Allergic rhinitis has been demonstrated to have a deleterious impact on emotional well-being and cognitive function. Rhinoconjunctivitis is common in underdeveloped nations, with 15.3 percent of 11 to 15-year-old schoolchildren in Northern Africa affected.

Rhinitis has a negative impact on a person's quality of life as well as their ability to attend school and work. It has a considerable impact on health-care expenses. Allergies are expected to cost the United Kingdom's national health systems one billion pounds per year.

Furthermore, research linking rhinitis and asthma is accumulating. Science has improved not just our knowledge of allergies, but also the results of allergy treatment. If allergic rhinitis is not properly treated, it may progress to bronchial asthma, bronchitis, eczema, and other allergy symptoms.

Traditional medicine assumes that all colds are the same and prescribes the same set of drugs, including intranasal corticosteroids, antihistamines, decongestants, nasal irrigation, and unnecessary surgery; sometimes to dry the nose, sometimes to suppress the cough, sometimes to reduce the fever and headache, and all of these drugs can have side effects.

Homoeopathy, on the other hand, may provide a considerable cure without any side effects or the need for unneeded surgery by encouraging the body to heal itself and so healing the patient's problems holistically, since it is a system that focuses on the individual rather than the illness. The holistic approach is utilized in homoeopathic treatment, which treats the individual as a whole rather than focusing on the disease's symptoms.

DEFINITION^[1]: *“Allergic rhinitis is an IgE mediated hypersensitivity disease of the mucous membranes of the nasal airways characterized by sneezing, itching in the nose, watery nasal discharge and a sensation of nasal obstruction.”*

The lining of the nose is connected to the paranasal sinuses, which may be affected as well. Allergic conjunctivitis and bronchial asthma are possible side effects.

Atopic people who are exposed to common aeroallergens develop allergic rhinitis.

CLASSIFICATION OF ALLERGIC RHINITIS

A. Clinical types^[2]:

1. *Seasonal allergic rhinitis* - it occurs particularly during pollen season to which patient is sensitive.^[2]
2. *Perennial allergic rhinitis* - in this rhinitis symptoms are present throughout the year.^[2]

A. According to severity^[3] :

1. **Mild** – intermittent
2. **Moderate- Severe** intermittent
3. **Mild** – Persistent
4. **Moderate – Severe** Persistent

Intermittent is when the symptoms occur <4 days per week or <4 consecutive weeks.^[3]

Persistent is when symptoms occur >4 days/ week and >4 consecutive weeks.^[3]

PATHOGENESIS

When a person with a sensitive immune system inhales an allergen such as pollen, dust, or animal dander, allergic rhinitis develops (particles of lost skin and hair). The allergens cause immunoglobulin E (Ig E) to develop in certain people, which binds to histamine-containing mast cells and basophils. It's called "pollinosis" when it's caused by pollen from any plant, and "hay fever" when it's caused just by grass pollens. Hay fever is called after the pollen discharged into the air by grasses when hay is harvested. It has nothing to do with fevers or hay.^[4]

Pollen and dust cause IgE to attach to mast cells, causing the release of inflammatory mediators including histamine and other chemicals. Common symptoms include sneezing, itchy and watery eyes, oedema and inflammation of the nasal passages, and an increase in mucus production.^[4]

Genetically predisposed people manufacture particular IgE antibodies in response to inhaled allergens. Blood basophils and tissue mast cells attach to the Fc end of this antibody. After subsequent exposure, antigens combine with IgE antibody at the Fab end. As a result of this occurrence, mast cells degranulate, releasing a variety of chemical mediators, some of which are already synthesized and others that must be made from scratch. The symptomatology of allergic illness is caused by these mediators. Depending on the tissue involved, vasodilation, mucosal oedema, eosinophil infiltration, increased secretion from nasal glands, and smooth muscle contraction may occur.^[5]

Clinically, allergic response occurs in two phases:

- a) **Acute or Early phase** – Sneezing, rhinorrhoea, nasal blockage, and/or bronchospasm are common symptoms that appear 5-30 minutes after contact to the allergen. The release of histamine and other vasoactive amines causes it. ^[5]
- b) **Late or Delayed phase** – It occurs after an allergen has been exposed for 2–8 hours with no additional exposure. Eosinophils, neutrophils, basophils, monocytes, and CD4 + T lymphocytes invade the antigen deposition site, causing swelling, congestion, and thick secretion. When an allergen is exposed repeatedly or continuously, the acute and late phases of symptoms overlap.^[5]

AETIOLOGY

A. Genetic predisposition : If one or both parents have allergic rhinitis, the chances of their offspring acquiring allergies are 20% and 47%, respectively. ^[6]

B. Allergens^[7]:

1. **Seasonal allergic rhinitis** – It is commonly caused by allergy to seasonal pollens and outdoor molds.
2. **Grass pollens** - seasonal allergic rhinitis in U.K (Varney, 1991) is most commonly due to allergy to grass pollen with seasonal symptoms in June or July corresponding to peak grass pollen counts. The commonest grass species associated with allergic rhinitis are – **perennial rye** (*Lolium perenne*), the large leafed Timothy grass (*Phleum pratense*), **cocksfoot** (*Dactylis glomerata*)
3. **Tree pollens** – Seasonal allergic rhinitis occurring during the spring time may occur following exposure to tree pollens including **birch, hazel, plane tree, ash and pine**.
4. **Weed pollens** - includes nettle, dock, and mugwort flower in late summer.
5. **Fungi spores**- in late summer and autumn. Common species includes *Cladosporium*, *Alternaria*, *Aspergillus* and *Basidiospores*.
6. **Perennial allergic rhinitis** - cause is allergy to – **House dust mite species** including *D. pteronyssinus*, *D. Farina* and *Euroglyphus maynei*.
The most common allergens in house dust are dust mites. Temperatures of 15-20 degrees Celsius and relative humidity of 60-70 percent are ideal for mite growth. In humid environments, mites are more prevalent. In most homes, the bedroom is the preferred breeding place, particularly the mattress, which contains enough of food in the form of human skin scales.

Mites also flourish in the pillow, bed clothes, and soft furnishings.

The major allergens of house dust mite have been identified as digestive enzymes present in the digestive tract and excreted in mite faeces.

Domestic pets – allergy to pests is also a common cause of perennial allergic rhinitis- **cats, dogs, rabbits, guinea pigs, gerbils, hamsters, horses and cockroach.**

Occupational allergens - Allergic rhinitis can develop due to inhaling allergens at work. Asthma and rhinitis caused by occupational allergen exposure frequently coexist in the same patient.

Common biological causes include – **flour** (in bakers, grain workers), **laboratory animals** including guinea pigs, rats and mice (in lab. Workers) and **wood dusts, biological washing powders** (in soap powder manufacturers) and **colophony** (due to the emanations of solder flux in electronic workers).

Latex allergy – Latex is a newly discovered allergy. It may cause rhinitis, asthma, urticaria, and even life-threatening anaphylaxis in certain people. Surgeons, nurses, dental nurses, other health personnel, and patients with indwelling latex urinary catheters are all at risk (eg. Spina bifida patients). Platinum salts and pharmaceuticals are two more chemical culprits.

Food induced rhinitis : IgE-mediated allergic rhinitis that is sometimes caused by food.

In addition to an IgE-mediated mechanism, food-induced rhinitis may be caused by sensitivity to preservatives such as sulphites, benzoates, and tartrazine.

Cheese, undercooked seafood, and some wines, which are rich in histamine, may trigger 'pseudo-allergic' symptoms such as flushing, headaches, and rhinitis. Drinking alcohol might induce nasal congestion.

1. **Food induced** allergic rhinitis is more common in children.
2. **Drug induced rhinitis** : The mechanism is largely unknown. Following drugs can cause allergic rhinitis:

Sensitivity to aspirin, NSAID's, antihypertensive drugs, topical vasoconstrictors.

3. **Role of pollution** :Nasal hyper- reactivity refers to heightened sensitivity of nasal mucosa to a range of non-specific irritants. Typical irritants include *perfumes, domestic sprays, tobacco smoke, traffic fumes and bleach.*

CLINICAL FEATURES

There is no preference based on age or gender. It might begin in infancy or in the elderly. The onset is usually between the ages of 12 and 16.

Accurate clinical diagnosis and evaluation of the patient's main symptoms are required for effective treatment of rhinitis symptoms. In general, the diagnosis is straightforward and based on the patient's medical history. The aetiology of rhinitis symptoms, on the other hand, is typically complex.

A complete medical history, a local examination of the nose, and skin prick tests should be conducted on all individuals with rhinitis symptoms. Additional testing, including as flexible and rigid endoscopy, mucociliary clearance studies, and immunological tests, may be necessary in certain situations.

SYMPTOMS^[8]

A. Seasonal Rhinitis

1. **Sneezing** - The first symptom of the hay fever season is usually sneezing. In severe cases paroxysms of sneezing occur at frequent intervals throughout the day. Sneezing is probably largely due to histamine release acting through reflexes.
2. **Rhinorrhoea**- Excessive fluid and mucous secretion is believed to be the response of seromucus glands to mast cell/ basophil derived mediators.
3. **Nasal obstruction or blockage** –is the result of vascular engorgement with resulting vasodilatation and oedema formation.
4. **Itching of nose, eyes, and palate** – are common features resulting from histamine and/or neural reflexes.
5. **Tearing , itching and red eyes**- together with some degree of periorbital oedema is usual in hay fever.
6. **Other symptoms**- may include a burning or raw sensation in the throat and development of asthma symptoms such as wheezing and chest tightness.

B. Perennial Rhinitis

1. The symptoms of perennial rhinitis differ from seasonal rhinitis largely because of long-standing nasal mucosal inflammation.
2. **Rhinorrhoea** - may be more viscous or purulent depending on the degree of cellular recruitment.
3. **Conjunctivitis**- is far less frequent in perennial rhinitis.
4. Nasal Congestion & Post-Nasal Dripping.

SIGNS^[9]

A. Nasal signs -includes

1. **Transverse nasal crease**
2. Oedematous nasal mucosa which may appear bluish.
3. Turbinates are swollen.

B. Ocular signs – includes

1. *cobble-stone* appearance of conjunctiva.
2. *Allergic shiners*
3. Increased lachrymation with long and silky eyelashes.
4. “*Dennie- Moragan lines* (creases in the lower eyelid skin) caused by venous stasis may be present”

C. Otologic signs – includes

1. Retracted tympanic membrane or serous otitis media because of Eustachian tube blockage.
2. Eczematous otitis externa may be present.

D. Pharyngeal signs - include *granular pharyngitis* due to hyperplasia of sub mucosal lymphoid tissue, which are also termed as “*cobblestoning*”

E. Laryngeal signs - *hoarseness of voice* and oedema of the vocal cords.

F. Skin – Atopic dermatitis may be sometimes found with allergic rhinitis.

G. Mouth – *Mal- occlusion (overbite)* A high arched palate, narrow premaxilla and receding chin may be present secondary to excessive mouth breathing.

DIAGNOSIS OF RHINITIS^[13]

Obtaining a full history and completing a physical examination accompanied with crucial tests are used to diagnose rhinitis in a patient who is complaining of upper airway issues. Additional laboratory, radiologic, and morphologic tests may be conducted if they are deemed essential.

To separate rhinitis from upper respiratory infections or other nasal problems, a complete history supplemented with particular questions, delivered in the form of either a structured oral interview or a written questionnaire, is required. The following items should be included in such a questionnaire: -

- Is there a history of atopy in your family?
- Is there a dominant nasal symptom, such as obstruction, sneezing, or nasal discharges, in the symptom profile?
- Are the nose issues isolated or do you have other symptoms as well?
- Are there any signals from other sections of the upper airways, that you should be aware of?
- Is there a history of bronchitis, eye disease, or dermatologic disease?
- What would you use to describe the symptoms, and what is the timeline for their onset?
- Are there any allergens in the house environment, such as bedding materials, pets?
- Are there any specific precipitating causes (pollen, for example)?
- Is there a connection between food and drink? Do any fresh fruits or veggies irritate your mouth?
- What medications are you now taking? Does any medication make symptoms worse?
- What are your job and leisure activities, especially those that worsen your symptoms?

Symptoms

Nasal obstruction, itching, sneezing fits, and increased nasal surface fluid are the classic symptoms, however the primary symptom varies from patient to patient. There is also a lot of diversity in how well nasal symptoms are tolerated by different people. Some individuals find a few episodes of sneezing bothersome, while others ignore the fact that their nasal canal is fully closed and seek medical help. When it comes to determining the severity of rhinitis, a complete symptom score registration may be beneficial.

- Pathogenesis difference leads to variability of symptoms of the major nasal symptoms. It is the result of a decrease in the tone of the capacitance vessels and, to a minor degree, tissue oedema. The *increase in nasal surface liquid* is the result of glandular activity, the leakage of plasma, and the increase in fluids from other sources, such as the conjunctiva.
- *Conjunctival symptoms of itching and increase in tear fluid* are also very common in association with allergic rhinitis: the term rhinoconjunctivitis is often more relevant.

Physical Examination

- Several facial features are associated with the various symptoms of the nasal and ocular disease. These include:
 - “*Allergic shiners*” - dark circles which are found below orbits, related to venus plexus engorgement.
 - “*Allergic gape*”
 - “*Transversal nasal crease*”
 - “*Dental malocclusion and overbite*” resulting from long standing upper airway problems.

D.Rhinoscopy

The following findings should be noted:

Any structural deformities, such as septal deviations, should be noted, with the location of the deformity and whether polyp is present or absent is noted.

- The amount and the condition of nasal surface liquids (e.g. watery , mucoid , or purulent)
- The condition of mucous membranes and the colour , texture, and signs of scars and lesions should be specifically evaluated – an allergic condition might be indicated by the traditional bluish tint.

- Unilateral nasal obstruction may also indicate a foreign body.

E.Examination of extranasal regions

The eyes, ears, chest, and skin are some of the other areas that should be examined.

Patients with persistent rhinitis should have their medical history collected to rule out asthma, their chest inspected, and some type of lower respiratory tract functional measurement, such as peak flow or spirometry, performed.

Because otitis media and middle ear effusions might occur more frequently in children with allergic rhinitis, the ears should be examined thoroughly, with a focus on any middle ear pathology. The otomicroscope is the ideal tool for this. A tympanometric examination can also be beneficial. *Atopic skin illnesses may manifest themselves more frequently, so the doctor should check for urticaria or eczematous lesions.*

D. Additional tests

1. Tests for the presence of allergy-

- a. **Skin tests-** help to identify specific allergen. They are *prick, scratch and intra-dermal tests*. Skin tests are preferred to scratch or intra-dermal tests which are less reproducible, more dangerous and may give false-positive response.

b. Blood tests-

- **Total and differential count-** to determine blood *eosinophils*. High level indicate Atopy (predisposition to develop allergic disorders).
- **RAST (Radio allegro-sorbent test) -** is an in-vitro test and indicates the presence of a *specific IgE* to any of the more common airborne allergens.
- **Serum IgE level-** high level indicates atopy.

2. Nasal challenge-

Nasal challenge can be used to test for specific as well non-specific reactivity. Non-specific reactivity may be tested using methacholine and histamine as the challenge agents. The test for specific reactivity involves the application of the specific allergens to the nasal mucosa.

3. Cytologic studies-

To assess the severity of the disease, or to elucidate whether the upper airway disease is of allergic origin, examination of the cytology of the upper airway mucosa is required. Techniques are *nasal smear and biopsy*.

The main focus is on to demonstrate the presence or absence of eosinophils. The presence of eosinophils is a sign of active inflammatory disease of allergic origin.

4. Radiology-

- a. A plain radiography of the sinus region.
- b. A lateral view of neck.
- c. Computed tomography(CT) scan.

COMPLICATIONS OF ALLERGIC RHINITIS^[10]

1. Bronchial asthma
2. Recurrent sinusitis
3. Serous otitis media
4. Nasal polypi

TREATMENT OF ALLERGIC RHINITIS^[11]

- 1. Avoidance of allergens**
- 2. Treatment with drugs**
 - a. Antihistaminics
 - b. Alpha-adrenergic drugs
 - c. Corticosteroids
 - d. Sodium chromoglycate

HOMOEOPATHIC APPROACH

Dr. Samuel Hahnemann was the first person to introduce Homoeopathy to the world of medicine.

The Law of Similars, which has been recognized since Hippocrates' time and is also noted in ancient Hindu literature, is the foundation of homoeopathy. However, it took more than 200 years for Dr. Samuel Hahnemann, a German physician, to completely grasp, implement, and integrate the Law of Similars into a comprehensive therapeutic system.

In his book "The Organon of Medicine," Hahnemann discusses the principles of Homoeopathy, which include the spiritual genesis of illness and the medications needed to heal it. Organon's Aphorisms 9 and 16 in particular deal with this subject. Homoeopathy is a holistic healing technique that blends science and spirituality.

Allergic rhinitis is one of the disease that can be cured completely and permanently only with the help of Homoeopathy.

There is special mention about allergic diseases in homoeopathic literatures under the heading **IDIOSYNCRASY**. Dr.Hahnemann defined idiosyncrasy in his famous book Organon of Medicine as "Idiosyncrasies by which are meant peculiar corporeal constitutions which although otherwise healthy, posses a disposition to be brought into a more or less morbid state by certain things which seems to produce no impression and no change in many other individuals".

Allergic responses and idiosyncracies have similar manifestations. Both of these reactions are hypersensitive. An idiosyncratic person is hypersensitive to one or a few items and does not need treatment because they are healthy, while allergic illnesses are caused by morbid susceptibility.^[13]

Successful homoeopathic prescribing necessitates a thorough case taking to determine the progression of the disease, its relationship to the patient's life condition, and the presence of specific symptoms. According to Hahnemann, an individual's constitution is what causes them to become unwell in the first place. The goal of treatment should be to improve the patient's constitution so that their sensitivity, which has deteriorated, can be repaired or brought back into normal range. It has been proven, verified, and confirmed that providing a child with appropriate constitutional treatment for a period of time enhances the child's constitution. As time passes, the attacks grow less frequent and less severe. By using a constitutional strategy, we can prevent the complaint from reoccurring by altering the changed susceptibility.^[13]

Miasmatic treatment can aid in the removal of any miasmatic block based on the patient's familial history, past medical history, and current symptoms.

During acute flare-ups, immediate medications are required.

Thus, when the notion of totality of symptoms and the principle of individualization are combined, the homoeopathic physician is able to perceive the disease in its entirety and prescribe a proper treatment.

Miasmatic classification of Allergic Rhinitis^[13]:-

- A hypersensitive sensitivity to different things such as dust, particular meals, or even strain causes a Psoric recurrent cold. Sneezing, a runny nose, and fatigue, with or without a fever, are all symptoms. It gets back on its feet without effort. The cough will be dry and spasmodic, with minimal expectoration, and it will become better with rest and heat.
- In the long term, the Sycotic kind of reoccurring cold may lead to chest congestion and asthma. There may be a loss of smell, sneezes in youngsters, and a dry rattling cough that occurs after a brief exposure to the cold. The process of recuperation is gradual.
- The tubercular kind of recurrent cold will result in repeated infections of the tonsils and lymph nodes. A deep cough with purulent greenish yellow expectoration, post-nasal drip, thick catarrhal discharge, haemorrhages, and a post-nasal drip are all potential signs. Overheating and nighttime (sunset to dawn) aggravate the condition, while nose bleeds and cold application relieve it. As a consequence of this, there will be prostration. Here, recurrence will be frequent, and recovery will be partial.

It can cause ulcerations of the nasal septum, glands, and other tissues during the Syphilitic stage. It will be difficult to recover.

HOMOEOPATHIC THERAPEUTICS OF ALLERGIC RHINITIS^{[12][14]}

- 1.) **ALLIUM CEPA^[14]** : “Coryza copious, watery, and acrid with profuse, bland lachrymation”, worse in a hot room and later in the evening, better in the open air. Sneezing, particularly when entering a hot environment.
- 2.) **AMBROSIA^[12]** : “Lachrymation and incessant itching of the eyes.” Watery coryza, sneezing, and epistaxis. In the nose and head, there is a stuffy sensation.
- 3.) **ARALIA RACEMOSA^[12]**: *Sneezing on a regular basis. Draughts irritate greatly. Sneezing and abundant watery, excoriating nasal discharge with a salty bitter flavor are caused by the least circulation of air.*
- 4.) **ARSENIC ALBUM^[12]** : “There is a lot of restlessness, and pain moves about a lot.” Fear of dying and being left alone. “Extreme weariness after the tiniest effort.” Acrid lachrymation and a burning discomfort in the eyes. Nasal discharge that is thin, watery, and excoriating. The bridge of my nose had become clogged. Sneezing and sneezing and sneezing and patient has a lot of thirst and drinks a lot of water, but just a little at a time. Worse in the middle of the day and at night; better with warmth and warm liquids.
- 5.) **SABADILLA^[12]**: *Chilliness, cold sensitivity Lachrymation has made my eyelids red and burning. With a runny nose and spasmodic sneezing. Dryness of the mouth and throat. Warm food may be swallowed more readily.*
- 6.) **HEPAR SULPHUR^[12]**: *Physically and intellectually, patient is very sensitive to all sensations. Even in warmer weather, he must have his face bundled up since he is very sensitive to chilly air. Nasal congestion caused by catarrh. When exposed to a cold, dry breeze, he sneezes. A splinter sensation in the throat. Suppuration may result from very minor injuries.*
- 7.) **EUPHRASIA^[14]**: Acrid lachrymation and bland coryza in abundance. Eyes are constantly watering and agglutinated in the morning. Coryza in the morning with a strong cough and a lot of expectoration, aggravated by exposure to the south wind in the evening.

- 8.) **LEMNA MINOR**^[12]: Polyps in the nose; enlarged turbinates. Atrophic rhinitis is a kind of atrophic rhinitis. Nasal blockage causes asthma. Nose emits a foul odor. There are a lot of crusts and mucopurulent discharge. Nasal leaking thereafter. When you wake up in the morning, you have a sour taste in your mouth. It's much worse when it's raining heavily and it's moist.
- 9.) **KALI BICHROMICUM**^[14]: “Tough, stringy mucus that sticks to the parts and may be dragged into long threads” is discharged from all mucous membranes. ^[14] Pain in little places, which may be covered by the tip of the finger, and which shifts fast. Pain at the root of the nose; plugs, or “clinkers,” are discharged. Coryza accompanied with a nasal blockage. Sneezing with venom. Oedematous uvula, bladder-like. When it's hot outside, it's much worse.
- 10.) **SAMBUCUS NIGRA**^[14]: Infants with dry coryza sneeze; nose is dry and clogged. When a kid is breastfeeding, he or she must let go of the nipples, which causes the nose to get blocked and the youngster to be unable to breathe. “The child wakes up, almost suffocating, stands up, and becomes blue.” It cannot be said to have expired. “During awake hours, sweat profusely all over body.”

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