

# Ayurveda's Role in Managing Allergic Rhinitis: A Case Study

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## ABSTRACT:

Allergic Rhinitis is an inflammatory immune response of the nasal mucosa to allergens in the air. The symptoms can be quite bothersome and disrupt a patient's sleep and overall quality of life. Asthma and other allergic problems frequently coexist. Modern medicine has no effective treatment for this condition. There is a requirement to seek appropriate care in another medicinal system. In this episode, we examine an Allergic Rhinitis case that was effectively treated with Ayurvedic medicines in Life Aveda. Allergic rhinitis symptoms include watery nasal discharge, nasal obstruction, nasal mucosal pallor, sneezing, and itching in the eyes, nose, and pharynx.

A 51-year-old female patient presented with complaints of sneezing [30-40 times per day], heaviness in the head region, headache, weakness, loss of attention by disrupting entire daily activities.

The clinical findings and symptoms of the patient pointed to perennial Allergic Rhinitis. It is associated with Vata-Kaphaj Pratishyay in Ayurvedic diagnosis. The patient was given Aller GI for 20 days, along with immunity enhancer, vasaka, and Yashti-M.

After a month, the patient reported relief in all symptoms. Absolute Eosinophil Count was lowered from 704 to 360 cells/cu mm, while eosinophils in CBC were reduced to 4.1%. After completing the medication, the most common complaint of sneezing was reduced to 2-3 times per day.

**Keywords:** Allergic rhinitis, Vata-Kaphaj Pratishyay, Aller GI, Immunity Enhancer, Yasti M, Vasaka, Eosinophil absolute count.

## Introduction:

Allergic rhinitis is an IgE-mediated nasal mucosal reaction. It is a kind of nasal mucosal inflammation caused by the immune system's overreaction to an allergen. Allergic rhinitis mainly triggered by dust mites, pollen, spores, animal fur, animal urine, and saliva. Nasal congestion, watery discharge, sneezing, nasal pruritus, and other symptoms are among the signs and symptoms of allergic rhinitis. The nose frequently leaks clear fluid and symptoms begin within minutes of allergen contact and impact quality of life.

**There are three clinical forms of Allergic Rhinitis.**

- a. Seasonal AR:** Symptoms appear at or during a specific season when pollen from a specific plant is present in the air and the patient is hypersensitive to it. The most common allergens in seasonal allergies are pollen from trees, grasses, and weeds.
- b. Perennial AR:** Symptoms appear all year. The most common causes of perennial allergies include dust mites, animal dander, cockroaches, and mold.
- c. Occupational AR:** This is caused by an allergic reaction to a workplace material, such as grain, wood dust, chemicals, or laboratory animals, among others.

The global prevalence of AR in adults ranges from 10 to 30%, but it can reach 40% in children. AR and asthma coexist at a very high rate; the prevalence of coexisting Allergic Rhinitis was reported to be 65.24%, with the highest frequency (80%) in southern India. The AR bears a significant illness burden and has a negative impact on quality of life. Nasal obstruction/congestion, sneezing, nasal irritation, and rhinorrhea are the most common symptoms. However, nasal obstruction/congestion is the most concerning symptom that interferes with sleep and may result in obstructive sleep apnea due to constant positive airway pressure. Post-nasal mucous dripping and watery rhinorrhea are more bothersome than sneezing or nose irritation.

The recommended treatment options for AR include (a) oral or nasal H1 antihistamines for episodic symptoms, (b) intranasal glucocorticoids, oral or nasal H1 antihistamines, or leukotriene receptor antagonists like montelukast for mild symptoms, and (c) intranasal corticoids alone or in combination with nasal H1 antihistamines for moderate to severe symptoms, subcutaneous or sublingual allergen immunotherapy (limited). However, intranasal corticoids can cause nasal irritation, hemorrhage, and septal perforation, and their efficacy for nasal congestion is unknown when compared to antihistamines. Antihistamines have sedative effects and provide only temporary symptom alleviation.

Nasal decongestants have side effects such as nasal bleeding, stinging, burning, and nose dryness. Long-term use causes hypertension, tachycardia, sleeplessness, headache, and irritability. Upper respiratory tract infection and headache are two potential side effects of leukotriene antagonist receptors. Subcutaneous and sublingual allergen immunotherapy require constant monitoring because they can cause anaphylaxis. The risk/benefit ratio of immunotherapy is unknown.

Ayurveda, often referred to as the "science of life," provides holistic solutions for chronic ailments. The ancient texts describe a wide range of medicines, each with diverse modes of action, targeting various systems based on the vitiation of Dosha-Dushya.

Within Ayurveda, "Pratishyaya" is a comprehensive term that encompasses various types of rhinitis. Typically, Pratishyaya is a condition in which Kapha and other Doshas accumulate, are drawn towards Vayu, and then expelled through the nostrils.

Allergic Rhinitis (AR) can be likened to a Vata-Kapha Dosha predominant form of Pratishyaya according to Ayurveda. The signs and symptoms of AR commonly point to the vitiation of Vata-Kapha Dosha.

**Table 1 - Similarities between Allergic Rhinitis and *Vata* and *Kapha* predominant *Pratishyaya***

Allergic Rhinitis	<i>Vata</i> predominant <i>Pratishyaya</i>	<i>Kaphaj</i> predominant <i>Pratishyaya</i>
Nasal obstruction	Stuffed and obstructed nose	Difficulty in breathing
Paroxysmal sneezing	Repeated sneezing	–
Post nasal drip	Cold clear nasal fluid nasal discharge	Sticky nasal discharge
Itching in nose and may involves eye, palate or pharynx	–	Itchy sensation in oral cavity
Chronic cough	–	Cough
Loss of smell	Anosmia	–

The present case of Allergic Rhinitis was treated for 15 days with a polyherbal preparation of Aller GI cap, Immunity enhancer, Yasti M, and Vasaka. Absolute Eosinophil Count improved significantly, symptoms were minimized, and patients reported relief from the disease in a month.

### 1.1. Case study

In March 2023, a 51-year-old female patient arrived at Life Aveda's Out Patient Department (OPD). The patient had a somewhat deviated nasal septum to the left side and had Allergic Rhinitis (AR) symptoms for seven years, three to four times a month for 4-5 days.

The patient had noted that she is experiencing symptoms when exposed to dust and fumes from incense sticks. The patient had modern treatment for the condition, which included oral antihistamine, decongestant and occasionally steroid nasal sprays three times a month for at least four days. The patient had used an antibiotic twice for 5 days throughout a seven-year period, but symptoms reappeared immediately after she stopped taking the prescription. The following are the details of the medical history and complaints at the time of the visit.

- ❖ The left nostril was half blocked and both nostrils were itchy.
- ❖ Sneezing up to 1 hour (30-40 sneezes) per day, mostly in the morning.
- ❖ Rhinorrhea (watery flow from the nose)
- ❖ Heaviness in the brain
- ❖ Concentration lapse
- ❖ Weakness

The patient's SFAR (Score For Allergic Rhinitis) was 12 validating the diagnosis.

### 1.2 Diet history

The patient's dietary history reveals that she consumes buttermilk daily at lunch and milkshakes twice to three times per week in the morning. The patient had a daily practice of napping for an hour after eating.

### 1.3 Drug history

The patient had no history of any major medical conditions. Menstrual history reveals that she had menopause.

## 1.4 Family history

The patient's mother was suffering from asthma and was on an inhaler.

## Findings:

### 2.1. General assessment

There was no history of serious sickness in the patient. Her pulse rate was 88 beats per minute, and her blood pressure was 116/74 mmHg. She had no addictions such as alcohol, smoking, or tobacco. Her quality of life has suffered as a result of recurrent sneeze episodes, and she has low immunity.

### 2.2. Local inspection

The patient had a somewhat deviated nasal septum to the left side in the shape of a C. Both nostrils have mild inferior turbinate hypertrophy. The nasal mucosa is pallor and slightly edematous. Both nostrils had a clear, watery nasal discharge. There were no other severe anatomical structural deformities found. An examination of the throat indicated no posterior pharyngeal wall congestion, both tonsils were normal, and the uvula was pink and rounded.

### 2.3. Systemic investigation

The patient was aware of the date, time, and location. Her respiratory and cardiovascular systems were also normal. At rest, the respiratory rate was 16 breaths per minute.

The findings of the eightfold examination were as follows: Nadi (pulse) Vata Pradhan and Pittanubandhi, Mutra (urination) and Mala (bowel habit) were normal, Jivha (tongue) coated, Shabda (speaking) was normal, Drik (vision) was normal (6/6 both eyes), and Akriti (built) was medium.

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The tenfold examination revealed *Dushya* (~any tissue of the body that gets vitiated) was *Rasa* and *Rakta Dhatu*, *Desha* (~habitat)- *Sadharan*, *Bala* (~strength)- *Madhyam*, *Kala* (~time)- *Sheet Ritu*, *Agni* (~digestive fire) – *Mandya*, *Prakriti* (~body constitution)- *Vata-Pitta*, *Vaya* (~age)- *madhyam* (~middle age), *Satva* (~psychic condition)- *Madhyam*, *Satmya* (~homologation)- *Sheet Jala* (~cold water), *Ahar* (~diet)- Salty and sour food items eating twice in a day.

### Vataj –Kaphaj pratishyaya samprapti :

Consumption of etiological factors like Curd, milkshake, day time sleeping, exposure to allergens



Vitiation of Vata, Pitta, and Kapha together with Rakta separately



Localized in Shira (head region)



Symptom of Vata–Kaphaj Pratishyay manifest

**2.5 Investigation:**

To confirm the diagnosis of Allergic Rhinitis, the patient was suggested to do Hemogram with Absolute Eosinophil Count (AEC). The AEC was 704 cells/cumm, Hb-12.7g/Dl, RBCs-  $4.74 \times 10^3/\mu\text{L}$ , WBCs-  $11.84 \times 10^3/\mu\text{L}$ , Platelets- $380 \times 10^3/\mu\text{L}$ , Eosinophils-0.89 (8.2%). The raised value of AEC and eosinophil in blood suggested allergic pathology and eosinophilia. So based on the medical history given by the patient and pathological investigation reports the diagnosis for the patient was Allergic Rhinitis (AR) with mild deviated nasal septum with eosinophilia

**2.6 Diagnostic challenges:**

Patients with allergic rhinitis are more likely to have asthma and other allergy disorders such as atopic dermatitis and allergic conjunctivitis. A detailed personal medical history, along with pathological investigation reports, aids in the confirmation of the diagnosis. Some of the tests that can confirm the diagnosis of AR include a skin test, a nasal provocation test, and nasal cytology. Recurrent nasal allergies can cause sinusitis, nasal polyps, and, in severe cases, ear infections such as serous otitis media. A nasal examination with a spotlight was performed to identify and diagnose the condition, and PNS (Para Nasal Sinuses) discomfort was evaluated to rule out any sinus involvement. An otoscopic examination was also performed to rule out any ear pathology.

**2.7. Therapeutic measures**

The patient was instructed to take 4 medications at first, including Aller GI capsules, Immunity Enhancer capsules, Yasti M capsules and Vasaka capsules. All of these medications must be taken by her twice a day with lukewarm water. Take all prescribed medications within a 5-minute window.

**Table 2 lists the ingredients for ALLER -GI CAPSULES in detail.**

Sr. no.	Sanskrit name	Common Name	Botanical name	Rasa	Vipaka	Veerya	Action
1.	Haridra	Haldi/ Turmeric	Curcuma longa L.	Tikta, Katu	Katu	Ushna	Rasagat Dosha alleviation, Rakta Prasadana, Rasa-Raktagata Aam Visha alleviation, Kapha-Pitta Shaman
2.	Kapitana	Shirish	Albizia lebeck	Tikta	Katu	Ushna	Vata-Kapha Shaman, tridoshahr Kleda Shoshan (~absorbs excessive moisture in tissue)

3.	Ashwagandha	Indian ginseng	<i>Withania somnifera</i>	<i>Katu, Tikta, Madhur</i>	<i>madhur</i>	<i>Ushna</i>	<i>Vata-Kapha Shaman</i>
4.	Neem	Nimb	<i>Piper longum L.</i>	<i>Tikat</i>	<i>katu</i>	<i>Sheet</i>	<i>Pitta-kapha Shaman, krimighan, shoth har</i>

### 2.8. Results and follow-up

**1st Follow-up Result (After - 30 days) :-** The patient reported that she was doing well, was feeling healthy, and had not previously displayed any AR symptoms while she had been following all medications for 15 days.

**2nd Follow-up Result (After - 60 days) :-** After following our prescription continuously for 60 days she found an amazing change and there was more than 70% of symptoms were reduced.

**3rd Follow-up Result (After - 90 days) :-** After taking an ideal course of 90 days (3 months), now the patient is perfectly alright and has no any symptoms of Allergic rhinitis. Although she has taken one more month of course to prevent further complications or chances of recurrence.

➤ **Table 3 shows how medications affect hematological parameters, and Table 4 shows follow-up data up to one month after medication initiation.**

**Table 3 - Effect on hematological parameters.**

Parameter	Before Treatment	After Treatment
Haemoglobin (g/dL)	12.7	14
RBCs ( $10^3/\mu\text{L}$ )	4.74	4.54
WBCs ( $10^3/\mu\text{L}$ )	11.84	7.65
Eosinophils (%)	8.2	4.1
Absolute Eosinophil Count	704	360
Platelets ( $10^3/\mu\text{L}$ )	380	435

**Table 4 - Follow up time line.**

Date	Treatment Plan	<i>Aushadhi Sevan Kaal</i>	Symptoms observed on follow up
01/02/2021	Aller GI Immunity Enhancer Vasaka Yashti-M	1 capsules twice a day with lukewarm water	Sneezing (20–30/day), nasal obstruction, rhinorrhea, nasal itchy sensation, improvement in the concentration of work due to reduced sneezing.
01/03/2021	Continue all medication	Same	Sneezing (10–12), mild nasal obstruction,

01/04/2021	Continue all medication	Same	There were no major symptoms marked.
05/05/2021	Observation only (But still took 1 month course -self)	-----	Patient stable with no any major symptom

## DISCUSSION

Acute rhinorrhea (AR), a nasal mucosa disorder linked to type 1 hypersensitivity reaction, is characterized by recurrent episodes of sneezing and nasal discharge. The immune system overreacts by creating antibodies that fight the allergen when particles like dust, pollen, mites, or fumes enter through the nose, leading to the symptoms of AR. A tightness in the chest may be brought on by subclinical bronchospasm in the patient. The most prevalent chronic condition seen in ENT practices, AR has a complex etiology and several sites of presentation. Environmental contamination and the rise in the prevalence of AR are caused by industrialization and urbanization. Some of the known AR risk factors include nasal mucosa and IgA deficiency. In home or office settings, dusty surroundings, crowding, air conditioning use, dusty carpets, drapes, bookshelves, and occupational dangers all play a key role in triggering allergy reactions. Seasonal and permanent allergic rhinitis are both caused by an aerobiological flora, which also contributes to AR as an etiological factor. The prevalence of allergic rhinitis is highest between the second and fourth decade of life, and it steadily decreases as people age.

AR lowers a person's quality of life and places a heavy financial load on them. Avoiding allergens is one of the treatment options for AR. If medication is ineffective at controlling the condition, another option is immunotherapy. Antihistaminic, sympathomimetic, oral and topical corticosteroids, and leukotriene receptor antagonists are some of the medications used to treat allergic rhinitis. Target receptors for bioactive mediators of inflammation are some of the effective therapy approaches for AR. According to reports, one-third of children and two-thirds of adults with AR don't get enough relief with medication alone. The potential curative treatment for both seasonal and perennial AR is allergen immunotherapy. However, these are not economical, and the patient still needs daily medication.

### 3.1. Vyadhikshamatva and allergic rhinitis

The term "Vyadhikshamatva" refers to a broad concept that encompasses many different aspects, including "Vyadhibala Virodhitva" and "Vyadhi Utapadaka Pratibandhakatva" (or "resistance to disease manifestation"), which are both reliant on "Ojus" (the "essence of body tissue" and its subtypes). Beyond basic immunity, it refers to the body's ability to fend off various illnesses, maintain the equilibrium of the body's Doshas (functional principles), Dhatus (tissues), and Malas (metabolic waste products), and uphold general health. In disorders like AR, where local and systemic causes result in hypersensitivity reactions, immunity, as a part of Vyadhikshamatva, plays a significant role.

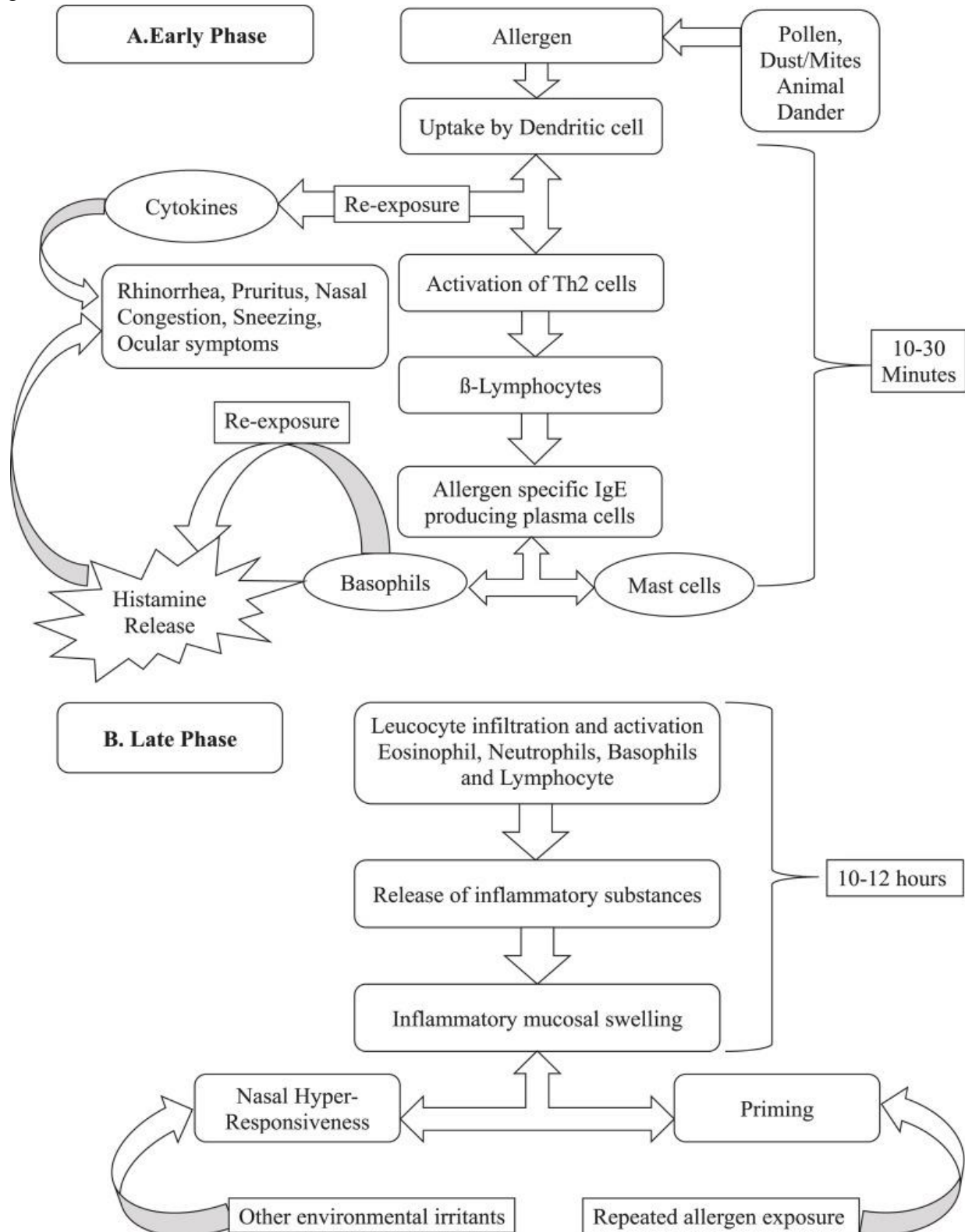
### Pathology 3.2

Allergic Rhinitis (AR) is characterized by hypersensitivity reactions triggered by various substances, including pollens, animal fur, certain foods, and various medications. In response to these allergens, the body produces large quantities of IgE antibodies.

These IgE antibodies attach to the surface of mast cells, leading to an immediate hypersensitivity reaction. Subsequently, a series of mediators are released. This cascade involves the formation of IgE antibodies,

their binding with basophils and mast cells, a process known as degranulation, and the rapid release of pharmacologically active mediators.

As a result, individuals with AR experience symptoms such as nasal mucosal swelling, eosinophil infiltration, nasal gland secretion, and more, all of which contribute to the characteristic symptoms of allergic rhinitis.



**Fig. 1 A & B. the early and late phases of the AR response.**



This case study describes a female patient who had AR. In this instance, Vata-Kapha Dosha vitiation is predominantly linked to allergic rhinitis. The patient had taken 1-2 capsules of each Aller GI, Immunity enhancer, Yasti M and Vasaka with lukewarm water for 30 days.

Sr. no.	Name of Medicines	Action
1.	<i>Aller -GI Cap.</i>	Helpful in relieving early morning sneezing & congestion Helpful in relieving running nose & watery eyes Supports a healthy respiratory system Aids in eliminating mucus & preventing allergic infections Supports immunity & provides resistance to allergens
2.	<i>Yasti-M</i>	Helps with common cold & cough. Helpful indigestion & flatulence. Manages respiratory disorders. Supports elimination of sticky mucus & eases sore throat.
3.	<i>Immunity enhancer cap.</i>	Supports immunity & body defense system Aids in preventing seasonal cough, cold & fever Helps improve lungs & respiratory health Supports strength, energy & stamina
4.	<i>Vasaka</i>	Helps in managing bronchitis & asthma. Helpful in cold, cough & sore throat. Manages viral infections & allergic reactions. Effectively helpful in respiratory inflammation Aids in fighting against nasal & chest congestion

In a nutshell, the Saam Kapha and Vata are increased by the causes of AR, which results in the symptomatology of AR. Rasa, Guna, Veerya, Vipaka, and Prabhava are the five modalities through which a Dravya executes its Karma (action), making all five of these modalities Gunas. The primary mode of action for all Oushadh Dravyas (medical Dravyas) is Veerya. A Dravya acts largely by engaging with an Adhikaran (receptor), a particular type of bodily structure. The Vishishta Samarthya Sampanna Guna (the most potent and effective factor), also known as Veerya, is what makes medicine effective against pathogenesis.

A polyherbal combination known as Aller GI Capsules primarily contains Tikta Rasa and Ushna Veerya qualities that have the effect of calming the Saam Kapha Dosha, which is the cause of Allergic Rhinitis. Thus, the disease is reduced by the capsule's contents' synergistic impact. Allergens are substances that set off an aberrant immune response, resulting in symptoms like itching, sneezing, inflammation, and asthmatic symptoms.

The patient was instructed to abstain from milk and milk products, bakery goods, and oily and spicy food that is generally Guru and Snigdha in nature during the first 30 days of treatment because these foods can exacerbate allergic conditions because they are Abhishyandi (slowing down of cellular metabolism) in nature.

When a follow-up was conducted after 30 days without taking any medicine, the patient reported feeling healthy after receiving the Ayurvedic treatment and had not exhibited the symptoms since. The eosinophil level, which is often high in allergic diseases, returns to normal in reports made before and after therapy, indicating that Ayurvedic drugs stabilized the aberrant immune response.

As repeatability validates the treatment procedure and provides a better and more in-depth grasp of the Ayurvedic perspective on disease, another case study is necessary in these situations to support the results in AR.

### **3.3. The patient's viewpoint**

The patient was initially very frustrated with the AR symptoms when she went to the outpatient department for the first time, especially with the numerous sneezes throughout the day that affected her quality of life and caused her to lose focus at work. She must regularly take antihistamines, which makes her drowsy during regular activities. However, after she began to follow the Ayurvedic treatment, her symptoms quickly disappeared, and she now has faith in the Ayurvedic drugs. She posted more content with her own perspective in the regional language of Punjabi.

### **3.4. Informed permission**

The patient's written informed consent has been obtained in order to publish the results for the benefit of scientific society knowledge.

## **4. Conclusion**

The irritating symptoms of allergic rhinitis are more detrimental to a patient's quality of life. It places a heavy financial burden on societies all across the world. It takes modern medicine a while to provide a long-term cure for AR. There is a chance that ayurveda can treat persistent allergy conditions. The patient in the current case of AR responded quickly to treatment with Aller GI capsule, Immunity enhancer capsule, Vasaka and Yasti M, showing improvement in symptomatology and hematological markers.