



## RESPIRATORY ALLERGIES IN CHILDREN – A GENERAL OVERVIEW ON THE BASIC TREATMENT CONCEPTS IN AYURVEDA

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**Abstract:** Respiratory allergies are frequent atopic condition manifesting through allergic rhino conjunctivitis and asthma, affecting up to 40% of the population world-wide. Though not viewed as a life-threatening condition, it is also recognized to impose a significant burden to the quality of life of sufferers and their caretakers. It is apparent from epidemiology studies that the respiratory allergies in younger children below the age of 5 years is a relatively common problem. Many symptoms impair their quality of life and productivity. Many conventional managements like pharmacotherapy, immunotherapy, decongestants etc. fail to prevent the recurrence as they demand a persistence adherence to these methods apart from the serious complications they produce in the children. So, there is an increased need for some alternative remedies providing not just a symptomatic relief but also preventing the recurrence. This review provides a brief description on various treatment concepts in Ayurveda which helps in effective management of respiratory allergies.

**Index terms – respiratory allergies, allergic rhino conjunctivitis, allergic asthma, treatment concepts**

### INTRODUCTION

Respiratory allergies are major cause of morbidity in both children and adult, and it is one of the prime diseases of respiratory system found in all age groups irrespective of sex. An allergic condition which is a hypersensitivity disorder of the immune system, is one of the major causes of recurrent respiratory diseases among the pediatric population. Various air borne allergens can induce a variety of upper respiratory symptoms with a wide spectrum of severity, which includes nasal congestion, watery nasal discharge, paroxysmal sneezing, chest congestion, cough, sore throat etc. Allergic respiratory disorders are characterized by an increase of serum IgE levels. A serum total IgE higher than 100 IU/ml before the age of six years have a higher risk of being atopic.<sup>(1)</sup>

Allergy is confirmed in 35 to 38% of upper respiratory tract infections in children and pose an important risk factor for the same.<sup>(1)</sup> These allergic disorders are often under diagnosed and under treated, creating considerable burden on children and families and is responsible for approximately 1% of all disability adjusted life years lost worldwide. Complications has also been reported to increase health care cost of the affected child.<sup>(2)</sup> Therefore, even though, mostly a nonlife threatening condition, they can impair the person's ability to function.

### ALLERGY IN AYURVEDA

Though there is no appropriate description in Ayurveda to correlate with the term Allergy. However, after reviewing through the Ayurvedic literature, we come across some references which may possibly explains the concept of allergy.<sup>(3)</sup>

#### 1. Concept of Ama Dosha

The term *Ama* refers to something which is undigested due to the hypo functioning of *agni*. If one is

constantly exposed to any factors that can cause an imbalance in the equilibrium of *doshas* can ultimately disturb *agni*, creating *ama* as a result. Thus, formed *Ama* combines with the *dosha*, *dushya* and *mala*, attaining a *sama avastha* and acts as *visha* (intrinsic factors stimulating an allergic response) <sup>(4)</sup>. Accordingly, different symptoms are produced at different levels. In case of allergies, *ama* can be viewed as antigen. So, whenever *jatharagni* is impaired, it leads to the formation of *ama dosha* (antigen) which is supposed to be a very important factor in the *samprapti* of Allergic disorders and the allergic response is nothing but our system trying to rid itself of excess *ama*.

## 2. Concept of Asatmya

When *asatmya ahara* and *vihara* when followed it may result in an altered response in the body of an individual. These manifestations in the form of altered response of the body points towards Allergy <sup>(5)</sup>.

## 3. Concept of Virudha ahara

Acharya Vagbhata has defined *virudha ahara* as any *ahara* that causes vitiation of *doshas* but does not get eliminated from body. It has been described that certain food material having antagonistic properties when consumed leads to the formation of *ama*. The *ama* thereby produced acquires toxic potency and exhibits toxic symptoms <sup>(6)</sup>. This in turn stimulates allergic reactions in the body.

## 4. Concept of Dushi visha

This is a most important and unique concept of Ayurveda which can be directly co-related with Allergy. Acharya Susruta has described that a part of *Sthaawara*, *Jangama* or *Krtrima Visha*, which cannot be removed from the body but instead becomes less potent after digestion or the counter action of antidotes stays in the body for a long period and vitiating it slowly. They may remain in the body in dormant state for quiet long period. <sup>(7)</sup> It is a low potent poisonous substance which resides in the body and vitiates *dhatu*s when favourable conditions occur. A hypersensitivity reaction is closely related to the activation of histamine in the body. Histamine is also present in latent form like *dushi visha*. It remains in an inactive form within the covering of cell wall. So whenever there is an exposure to any allergens, it gets activated and symptoms are produced. This simulates to the concept of *dushi visha* in Ayurvedic Literature.

## 5. Concept of Asatmyaja vyadhi

There are some rules regarding the adoption of coming season and abandonment of the *Ritucharya* of previous season which are mentioned under “*Ritu sandhi*”. If do’s and don’ts of *Ritu sandhi* are not followed properly, it leads to *asatmyaja vyadhi*, *tridosha kopa* and simultaneous vitiation of *dhatu*s <sup>(8)</sup>. In the same context, Susruta has also mentioned the occurrence of diseases like *kasa*, *swasa*, *pratisyaya*, *shiroroga* etc due to *vata dosha vikruti* <sup>(9)</sup>. These diseases are included under the respiratory allergic symptoms in modern textbooks. So, this phenomenon of *Asatmya* shows that there are some factors which are enough for man to be allergic and hence this concept of *Asatmyaja vyadhi* is very scientific.

## BASIC TREATMENT CONCEPTS

Allergy in Ayurveda is widely elaborated under the concepts of *ama*, *virudha ahara*, *asatmya*, *dushi visha*. Allergic disorders are well known for its chronic and recurrent nature, and this can be well explained through the above said concepts. In children the *pranavaha srotas* easily gets affected as their digestive fire (*agni*) is unstable due to non-acclimatization with different states of food (*aharasankaratwat*) <sup>(10)</sup>. This digestive fire (*agni*) is closely related to *pitta dosha* and thus resulting in the simultaneous vitiation of the same. Moreover, the site of *pranavaha srotas* is at *kapha sthana* and children are more in *kapha* predominant stage. So mostly *kaphaja* disease are encountered with *pranavaha srotas* in children. Vitiation of *pranavaha srotas* sequentially results in the vitiation of *anna* and *udakavaha srotas*. Thus, the vitiation of *kapha* and *pitta dosha* along with vitiation of *prana*, *anna*, *udakavaha srotas* gives rise to many symptoms pertaining to upper respiratory tract. So, managing at the root level i.e., correction of the deranged digestive fire (*agni*) and maintaining its equilibrium prevents the subsequent *dushti* of *doshas* and *srotas*. Whenever the vitiated physiological parameters (*agni*, *doshas*, *dushyas*, *srotas*) remains latent there is increased chance of recurrence of the disease. If these are not treated properly, their prognosis also become worse. Based on the above said possible pathogenesis following treatment approaches can be adopted in managing various allergic manifestations.

### 1. Nidana parivarjana:

Ayurveda basically considers *nidana parivarjana* or avoidance of the causative factors as the primary line of treatment <sup>(11)</sup>. The goal of management of allergy has shifted from symptom relief to disease control and it also ensures the patient's wellbeing. One of the major steps towards the disease control is prevention of one's exposure from many triggering factors. There is both host factors (*Nija Hetus-Dosha dushti* and *Ama*) and

environmental factors (*Agantuja Hetus – Raja, Dhuma, Pragvata, etc*) resulting in the occurrence of an allergic disease. Both Ayurveda and modern medical Science agree regarding the fact that *Nidana Parivarjana* or avoidance of the triggering factors plays a key role in the management strategy in both sciences.

## 2. Agni deepana:

Agni plays an important role in the digestion and absorption of food. Whenever the status of *agni* is altered, it results in the formation of *ama* and ultimately into various diseases. *Mandagni* is considered as root cause of any disease in our classics. Hence *agnimandya* has to be treated with drugs having deepana action. Thus, strengthening of *agni* thereby preventing the *ama avastha* helps our system to resist the onset of disease.

## 3. Ama pachana:

Acharya Charka has included *pachana* under *langhana karma*<sup>(12)</sup>. It is a process of metabolic transformation of undigested substances into digested ones. They may or may not help in stimulating agni. Whenever the already formed *ama* remains latent in our body they acquire toxic properties and exhibits toxic symptoms. This also leads to hampering of normal function and activities of *dhatu*. Thus provokes an onset or recurrence of a disease. Hence once formed *ama* has to be eliminated from the body, which is possible by various *pachana* (digestives) medicines. These medicines help in the digestion of *ama* which is already in the body.

## 4. Sroto sodhana:

The *srotas* involvement in the manifestation of disease is well discussed in our classics, so also its importance in the maintenance of normal physiological function. *Sammurchana* of *doshas* and *dushyas* results in defective *srotas* and must be corrected quickly for the restoration of normal health. There is involvement of *prana, rasa, raktha, udaka, anna vaha srotas* in the pathogenesis of *ama*. So *sroto sodhana* is an important line of management. The treatment should aim at clearing of the obstructed *pranavaha srotas* thereby pacifying *vata dosha* and finally correction of *agnimandya*.

## 5. Brhmana chikitsa:

Since there is a pre-existing *agni mandya* there is an absence of *dhatu poshaka rasa* leading to *dhatu kshaya*, which further results in *vata* vitiation. In order to pacify these vitiations of *vata dosha*, *brhmana* therapy (nourishing) can be adopted along with *deepana pachana* medicines.

## 6. Samana chikitsa:

Apart from use of appetizers and carminative medicines, other palliative modalities in the management of respiratory allergies has specifically mentioned rather than *sodhana* or *karshana chikitsa*. Use of medicines that are *kapha vatahara, vatanulomana* and *usna* are preferably used<sup>(13)</sup>.

## 7. Sodhana chikitsa:

Though it is only advised when all other measure fail, especially in children as they may not tolerate purificatory procedures. Milder form of these procedures help in removing the existing *malas* from the body and helps in alleviating vitiated *dosha* thus maintaining equilibrium of *dhatu*s. It should be done followed by proper administration of appetizers and carminative medicines which helps in enhancing the digestive fire.

## 8. Rasayana chikitsa:

Ayurveda strongly rely on the preventive aspects of the disease (*urjaskara*) rather than just on curative one. Rejuvenation is of prime importance in achieving this. Due to instability of *agni, dosha* and *dhatu*s in children, any etiological factors easily help in the pathogenesis of the disease. The main aim is the attainment of the excellence of tissues both in its structural and functional levels, thus tonify the immune system. Most of them are *sroto sodhana, agni deepana, kaphavatahara, vata anulomana*. They help in restoration of *agni* in its normal state, elimination of toxic materials and maintaining the internal environment of the body.

## 9. Pathya – apathya chikitsa:

Acharyas have extended the concept of *pathya* and *apathya* as a part of treatment of diseases. *Pathya* means that which is good and beneficial for the *patha/srotas*. These include both food and lifestyle practices. It helps in alleviation of *doshas* and correction of vitiated *srotas*.<sup>(14)</sup> Judicious planning of treatment by proper understanding of the etiology, drug therapy and *pathya* always yield a successful eradication.

## CONCLUSION

Respiratory allergies are one of the most common form of allergic diseases seen among children. Respiratory allergies result in increased school absenteeism and distraction during class hours. The direct costs of medical care and medication, and the indirect costs of the time lost from school and workdays are enormous.

Modern science offers a combination of avoidance of allergen, pharmacotherapy, and immunotherapy as the mode of management in respiratory allergies. Pharmacotherapy, decongestants and immunotherapy presents with varying levels of safety and tolerability issues in children. Even though the avoidance is the first intervention to prevent the appearance or the worsening of symptoms, it may often fail to serve the purpose

due to failure in identifying the triggering factors and reducing the exposures. That is why there is a growing need for alternative or adjuvant treatments for the relief of respiratory allergy symptoms.

The presence of impaired *agni* plays a vital role in the pathogenesis of the disease. Again in children they have unstable digestive power as they are predominant of *kapha dosha*. If *agni* is impaired, proper digestion and assimilation does not take place which leads to the formation of *ama* thereby resulting in obstruction of *srota*. Hence formation of *ama, sroto dushti (prana, anna, udaka, rasavaha)* and *pratiloma gati* of *vayu* are involved in the pathogenesis of disease.

Various treatment concepts mentioned above provides more promising and satisfying results by managing at the root level of etiopathogenesis. The correction of deranged *agni* by *deepana* and *pachana* drugs followed by *sroto sodhana* prevents the recurrence of the disease by correcting the pathogenesis.

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