



## From the Founder:

Greetings from the Council for Ayurveda Research (CAR)!

With this issue, we have successfully published 4 newsletters in the year 2015! A huge shout to our Editorial team as well as Newsletter Committee members for their hard work and commitment in bringing these issues out for you. Hope you have enjoyed our newsletters as much as we have enjoyed bringing them to you.

CAR continues to make strides in developing a resource and support platform in research, for Ayurvedic practitioners. Some new resources have been added on our website and more are in the pipeline. A few new members have joined us. To remain updated with the latest developments, please visit our website <http://ayurvedaresearchusa.org/>.

As with any group, we are looking for your feedback, participation as well as support in making this the kind of resource agency that you would like it to be. So please email us and share your thoughts with us. We are also looking for more volunteers and subject experts to join us. So please do reach out. Our email is - [ayurvedaresearchusa@gmail.com](mailto:ayurvedaresearchusa@gmail.com). And take a minute to fill out our short survey to assess your thoughts and needs: <https://www.surveymonkey.com/s/6D9VH82>

We look forward to hearing from you!



*Pratibha Shah*

(Pratibha Shah, Masters in Ayurveda, MPH)

## Research Abstract

### Clinical investigations on the Ayurvedic management of Allergic Rhinitis

#### (Vataja Pratishyaya) by Pratimarsha Nasya as nasal drug delivery system

Shiva Kumar, Debnath P, Banerjee S, Raj A, GR, Rao PN

**ABSTRACT:** Allergic Rhinitis (AR) is an immunoglobulin (Ig) E mediated inflammatory disease caused by the inflammation of airway mucosa with hypersensitivity resulting from seasonal or perennial responses to specific allergens. Prevalence of AR is increasing and has risen considerably in the past few decades with self-reported prevalence up to 41%. According to Ayurvedic texts indication of Anutaila (classical Ayurvedic oil preparation) used in the form of Pratimarsha Nasya a traditional nasal drug delivery system has been used for a long period has shown beneficial effects on diseases of head and neck. A pretest and post- test design of single group consisting of 37 patients diagnosed as allergic rhinitis were administered Pratimarsha Nasya (PN) with Anutaila daily for a period of 60 days. Effect of Pratimarsha Nasya with Anutaila on the chief complaints and totals nasal symptom score showed ameliorative improvement with statistical significance. Laboratory immunological parameters which included Total Leucocyte Count, Absolute Eosinophil Count, Neutrophils and Lymphocytes showed improvement with high statistical significance (< 0.001). At the end after 60 days of medication the patients showed marked relief in symptoms which can open a new direction in Ayurveda inspired novel targeted drug delivery systems.

Ayurveda can reach out for the most important research needs in the field of allergy to serve as key recommendations for future research with efforts to unveil the basic patho-physiologic pathways and mechanisms, thus leading to the comprehension and resolution of the patho-physiologic complexity of allergies will allow for the design of novel patient-oriented treatment protocols. Several allergic diseases require well-controlled epidemiological description and surveillance, using disease registries, pharmaco-economic evaluation. Additionally, there is a need for extensive studies to bring promising new biotechnological innovations in a holistic approach closer to clinical practice. Finally, particular attention should be paid to the difficult-to-manage, precarious and costly severe disease forms and/or exacerbations. Nonetheless, currently arising treatments, mainly in the fields of immunotherapy, biological with traditional system of medicine holds great promise for targeted and causal management of allergic conditions. Active involvement of all stakeholders, including Patient Organizations and policy makers are necessary to achieve the aims emphasized.

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This article is freely available to the public

## News and Upcoming events

### INTERNATIONAL & INDIAN EVENTS

- Global Cancer Summit is scheduled to be organized at Indian Institute of Science, Bengaluru from 18th November to 21st November; Eminent Oncologists across the globe are participating in this conference. Ayurveda Consultant Dr.Gaurang Joshi and Padma Shree Vaidya Balendu Prakash have been invited to speak on the Ayurveda Concept and Research in Oncology. This conference is organized by Biogenesis Health Clusters, Indian Council of Medical Research and Global Cancer Foundation.
- ICAAM 2016 (International Conference on Advances in Asian Medicine), organized by IASTAM India is scheduled to be held from 3<sup>rd</sup> to 7<sup>th</sup> January 2016 at Pune , India. The Theme of the conference is Asian Medicine : Global Health <http://www.icaam2016.com/>
- 5th International Conference On Ayurveda - Where Science Meets Consciousness will be held from December 11-18, 2015 at Vaidyagrama - Ayurveda Healing Village, Coimbatore, India <http://www.ayurvedaconference.com/>



### “ Quote of the month “

*The three supports of life are food, sleep and observance of discipline. Being supported by these three well regulated factors of life, the body is endowed with strength, complexion and growth, and continues up till the full span of life.*  
(cha.sutrasthana.11/35)



### “ Kitchen Spice Tip “

Regular use of pinch of turmeric powder and jaggery along with milk reduces allergic rhinitis.



## Understanding the movement and functions of Vata

The normal electrical conduction in the heart allows the impulse generated by the sino-atrial node of the heart to be propagated to, and stimulate, the cardiac muscle (myocardium) which then contracts and this ordered, rhythmic contraction allows efficient contraction of the heart, thereby allowing blood to be pumped throughout the body. The heart is a functional syncytium; electrical impulses propagate freely between cells in every direction on the microscopic level, so that the myocardium functions as a single contractile unit. This is the *avyahata gati* of *vata*. The conduction from SA to AV nodes, to bundles of His and Purkinje fibers is the *aparityakta swamarga gati* of *vata*. This rhythmical and conductive system of the heart is susceptible to damage by heart disease. The result is often a bizarre heart rhythm, and the pumping effectiveness of the heart often is affected severely, even to the extent of causing death. This explains the *vyahat gati* of *vata*.

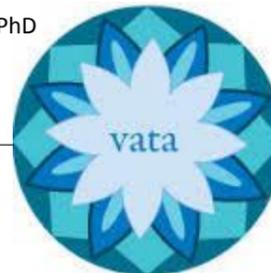
The circulatory system is the main method for blood transportation within body and also responsible for exchanging gases and removing waste products. This is the function of *swamargasthita vata* that helps maintain the homeostasis but when obstruction to this movement takes place due to any reason it gets *vimarga gati* and causes disease.

The *vata dosha* on basis of its functions is classified into five types. They reside in the body at the gross level and the cellular level. *Prakruta sthita* (normal) *vata* maintains a state of equilibrium. If there is an imbalance, *vridha* (increase) or *kshina* (decrease) then abnormality is seen. Eg: Normal pulse rate ranges from 60-80/min. Excessive pulse rates explains the repeated contraction of heart, one of the cause being excessive *akunchana prasarana karma* of *vyana vridhi* whereas one of the cause of bradycardia may be *kshina vyana vayu*. Increased peristalsis is the cause for increased frequency of stools one of the reason being *vridha apana vata* whereas reduced peristalsis causes constipation, *kshina apana vata*. Excessive stimulation of *agni* by *vridha samana vata* causes increased appetite whereas *agnimandhya* caused by *kshina samana vata*. Excessive excitation of cell due to excess action potential explains the *vridha udana vayu* whereas inhibition of cell activity is due to *kshina udana vayu*. Reduced respiratory rate due to depressed respiratory centre explains *kshina prana vayu* whereas *vridha prana vayu* may cause increased ventilation.

The five types of *vata* work together in a synchronized manner for the normal functioning of the body. It can be understood by understanding the physiology of sensation. In its broadest definition, sensation is the conscious or subconscious awareness of changes in the external or internal environment. An appropriate stimulus must occur within the sensory receptor's receptive field, which is transduced into a graded potential. This conversion is the function of *agni*, but the one which stimulates it is the *samana vayu*. When a graded potential in a sensory neuron reaches threshold, it triggers one or more nerve impulses, which then propagate toward the CNS, explains the *sarvasrotogata vyana vata* action. A particular region of the CNS receives and integrates the sensory nerve impulses (normally the cerebral cortex). Integration is the role of *antahkarana* but carried out by *prana vata*. A characteristic of most sensory receptors is adaptation, in which the generator or receptor potential decreases in amplitude during a maintained constant stimulus and the perception of sensation may fade or disappear. Eg: when you first step into a hot shower the water may feel very hot, but soon the sensation decreases to one of comfortable warmth even though the temperature of the water does not change. This is the *smriti kriya* exhibited by the *antahkarana* with the help of *udana vayu*.

The motor output in the form of nerve impulses from the brain travel along their axons and enter the spinal nerve. From the spinal nerve, they extend to skeletal muscles of the body; this is the function of *vyana vayu*. Thus afferent conduction of nerve impulse is the *urdhwagati* of *vyana*, efferent conduction is the *adhogati* of *vyana* and the autonomic stimulation is the *tiryak gati* of *vyana*. Further *prana* helps entry/facilitation of essential requirements within cell (endocytosis), which nourishes the cells. The mitochondria that are powerhouses of the cells are involved in metabolism (breaking the nutrients into carbon dioxide, water and energy in the form of ATP) through oxidation process, which is the function of *agni* triggered by the *samana vayu*. The intracellular movement of proteins, ATP transfer can be understood as the *vyapana/vyuhana karma* of *vyana vayu*. The end metabolites formed within the cell are removed through the process of exocytosis, process initiated by *apana vayu*.

Satyendra Narayan Ojha B.A.M.S; Masters In Ayurveda PhD



## Case Study

### Role of Garlic In Intervertebral disc protrusion



**Background** – Sciatica is a symptom that is most commonly seen due to the protrusion of the degenerated discs that impinges upon the nerve root. The pain is most prominent during active movement, stooping, and coughing, sneezing or lifting heavy weight. This type of disorder even though seems to be non serious, if left untreated it can lead to serious complications. Pain being the most worst symptom of disease, makes person to get weaned from his social and personal life

**Objective** - To evaluate the effect of Lashuna Rasayana i.e Garlic used in the Rasayana dosage in Gridhrasi (Intervertebral disc protrusion)

**Clinical features** - A female patient aged 35 years, complain of pain in the lower back and hip radiating down the back of the thigh into the leg sine 1 year. The patient was unable to bend forewards and also had loss of sensation in both her legs. The MRI showed a herniated lumbar disc at L4-L5 compressing the nerve root.

**Intervention and treatment** – Garlic was used in the Rasayana dosage for a period of 16 days. Initially 25 gm of garlic was given with milk for the first 4 days, then the dose was gradually increased to 50gm, 75gm and 100 gm respectively every 4 days. After giving the maximum dose of 100 gm on the 16<sup>th</sup> day, Virechana was done on the 17<sup>th</sup> day with Trivirt.

**Conclusion** - Medically an analgesic is the only option for this illness. This may not give patient permanent relief. Surgical correction options are available, but because of its fewer benefits, and many adverse effects, many patients do not opt for it. Hence medicament with higher benefits and less side effects, which can effectively reduce the pain, functional disability, and which can give back the person his functional ability with cost effectiveness is the need of the day. Garlic used in the Rasayana dosage is effective in relieving the severity of symptoms and the relief observed was of significance.

Abhishek A. Lulla, B.A.M.S; Masters In Ayurveda



### Satvavajaya Cikitsa

Mind (*Satva*) plays a key role on the health of an individual and pleasant state of mind is among the criteria for health in Ayurveda. In Ayurveda, life (*Ayu*) itself is the combination of Body (*Sarira*), senses (*Indriya*), mind (*Satva*) and soul (*Atma*).

Three major causes of diseases in Ayurveda are, *prajnaparadha* (willful indulgence in unhealthy practices), *parinaama* (time), and *asatmyendriyatha samyoga* (improper utilization of senses with their objects). These three factors are closely associated with mind since all the sense organs are associated with mind in both perception and action (*Ubhayendriya*). Surprisingly Caraka Samhita is the only ancient text to mention about *Satvavajaya cikitsa* as one among the line of treatment, which means the therapies through which one can gain control over the mind. *Satvavajaya chikitsa* is described as the way to restraining mind from unwholesome behaviors.

Healthy life can be accomplished by regulating our mind and body through health behaviors. Physical or psychological ailments need self-control of mind which can be achieved through desire, determination and dedication according to *Bhagavadgeetha*. Individual and social influence is necessary to accomplish the control over mind (*Satva*) by regulating the objects of mind such as thought process (*cintya*), by analyzing the ideas (*vicarya*), channeling the presumptions (*uhya*), setting the goal (*dheya*), and making the decision (*sankalpa*). This concept of Sattvavajaya can be closely related to the health behavior theories of modern era such as social cognitive theory, health belief model, self-efficacy theory, trans-theoretical model that are used in promoting health and in psychotherapy today. These theories use the same concepts of mind that is mentioned in *Satvavajaya cikitsa*. As the unhealthy diet, physical inactivity, smoking, binge drinking are posing big threat to human health, behavioral health techniques are being used to tackle the issue. Individuals need to learn to regulate their mind through cognitive factors such as observation, analysis, self-control, goal setting, decision making in order to make behavioral change according to these theories. Though *Sattvavajaya cikitsa* is not elaborated by Caraka or any other Acharyas, it gives a strong basis to further research in Ayurvedic psychotherapy. (Ca.Su. 1)

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