Ayurvedic treatment of allergic rhinitis
Review of two clinical trials

After a long winter, springtime has finally arrived, but with the rising temperature and the beauty of blooming flowers and trees a lot of people are suffering from allergic rhinitis. Allergic disorders are known throughout the world. Even though it is a known risk factor for asthma bronchiale it is not a threatening, but for the patient an annoying and disturbing disease due to its chronicity and aggravation in case of exposure to allergic agents.

In allopathic medicine, there is primarily only a symptomatic treatment with a more or less sufficient effect for the patient. Two studies about the Ayurvedic approach on allergic rhinitis were published in Ayu in 2009. The first one, a „Clinical study of Anurjata Janita Pratishyaya – allergic Rhinitis and comparative assessment of Nasya Karma“, published by NEHA J. MODHA (TANK) V. D. SHUKLA M. S. BAGHEL of the Institute for Post Graduate Teaching and Research in Ayurveda of the Gujarat Ayurved University in Jamnagar, compares two different cleaning nose treatments (Nasya karma) with a single, orally administered drug treatment. The second study „A clinical evaluation of Haridra khanda and Pippalyadi Taila Nasya on Pratishyaya (allergic Rhinitis)“, published by CHHAYA BHAKTI, MANJUSHA RAJAGOPALA, A. K. SHAH., NARAYAN BAVALATTI of the same university, compares an oral treatment with a plant mixture known as hardira khanda with a nose treatment consisting of an oil medicated with long pepper.

Both authors compare the modern term „allergic rhinitis“ with the Ayurvedic concept of Pratishyaya, and Modha specifies it furthermore as a Vata-Pratishyaya. For both authors the concept of allergy is explained under the term „Asatmyaja Vyadhi – an illness caused by something unhealthful“ and according to the classic texts the effects are related to heredity, wrong food combinations (viruddha-hara) or poisoning with toxins of low potency (dushivisha – includes also unsuitable food combinations) and transition of the seasons of the year (ritu sandhi).

Heredity was mentioned by Sushruta and can be explained by the individual immunity (bala), which is fixed at the time of fertilization and therefore could create a probability of a higher IgE level. Viruddhahara can be seen as food allergens, which promote all different kinds of metabolic reactions
as well as interaction with the normal body metabolism. Caraka added the important concept of pollution and non-obedience of food advices (dushivisha acharya) which will lead to different blood vitiating disorders and symptoms that can be related to allergic reaction. According to the authors environmental allergy can be explained, by the transition of the seasons (ritusandhi) which gives rise to unsuitable diseases (asatmyaja roga), aggravation of the three dosas (tridosha-prakopa) and vitiation of the body tissues (dhatu) if the routine according to the seasons is not followed properly.

According to Modha et al. there are three atiologic pathways. First is a present vititation of wind element (vayu), primarily due to vata aggravating factors. Second is a Kapha/Pitta/Rakta dominance due to aggravating factors. And thirdly Vata and Kapha/Pitta/Rakta are vitiated altogether by etiological factors. All three lead to an obstruction of Udana Vata by Kapha/Pitta/Rakta. Of the three basic treatment patterns of Ayurveda (calming – samshamana, cleaning – samshodhana and avoidance of the causing factors – nidanaparivarjana) a cleaning treatment of the nose (Nasya) is emphasized by Caraka. The recurrence and chronicity of the allergic rhinitis is explained by a not-proper evacuation of elevated dosas. These reside in a predisposing stage and provoke the same disease when exposed to certain aggravating factors, which can be seen as allergens.

Both studies selected their patients from the O.P.D. of I.P.G.T. & R.A., G.A.U., Jamnagar hospital. Included were basically patients with symptoms of an allergic rhinitis without complicating factors. Excluded were those patients with signs of an infectious rhinitis, anatomically disturbances like deviation of the nasal septum or polyps and known systemic diseases. While Modha does not mention any ethical clearance the second trial was approved by the Ethical Committee of I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar.

On this base Modha et al. compared the effect of a cleaning nose treatment (pradhana nasya) with oil prepared of dried ginger, as Caraka mentioned the use of sharp substances (tikshna dravya). Under the suspicion of an inflammatory condition of the nasal mucosa curcuma (haridra) as a well known and experienced based drug in inflammatory conditions and with blood cleaning (raktasodhana) and antitoxic (vishaghna) properties has been chosen for an internal administration. A total number of 69 patients were assessed and randomized into three groups.

Group A was treated by Nasya with an medicated oil from a paste of dried ginger in a dose of 6 – 8 drops in each nostril for a period of 14 days. In Group B, patients were applied a fine Kataphala (Myrica nagi) powder for Nasya in an appropriate dose until a proper cleaning was observed (samyak shuddhi lakshana). The average time was 3 – 6 days. In both groups the nose treatment was followed by an oral application of Sudha Haridra’ in a dosage of 2 grams three times a day with warm water or milk. Group C only received an oral treatment with Sudha Haridra for 21 days in the dosage mentioned above. A follow up was made one month after completing the treatment. The assessment of therapy efficacy included relief in subjective symptoms (nasal obstruction, nose running, sneezing, loss
of smell, headache, cough, itching, allergic shiners, pharyngal congestion, redness around nose, sudden nose running and sudden stop (akasmat pravritti and nivritti) on a scale between 0 = no symptoms, 1 = mild symptoms, 2 = moderate symptoms and 3 = complete symptoms.

Furthermore objective criteria were assessed by transillumination test and postural tests and an examination of stool, urine and blood with a special interest in eosinophil count and E. S. R. was made. The overall effect was evaluated with a complete remission = 100 %, marked improvement = 75-100%, moderate improvement = 50-75%, improvement = 25-50% and unchanged = < 25% relief in the symptoms. In each group, two patients did not finish the treatment. One patient from group B had an overwhelming cleaning effect, others were not able to perform nasya on a daily basis in hospital and others indulged in unbenefficial condition (apathy sevana) and did not respond to the treatment. The evaluation of the patients before treatment showed that suppressing of natural urges (vegadharana), unregular and inconsistent seasons (ritu-vaishamya) and inhalation of particles or smoke (dhuli-rajah-sevana) were the primary causing factors and nose running (nasa-srava), sneezing (kshavatu) and headache (shirah-shula) were the chief complaints with roughly around 95% of the patients. All the results are well shown in tables that also describe the distribution of the different symptoms and the relief after treatment. Here it is also shown that the symptoms are more or less equally distributed in the different groups.

Nasal obstruction, pharyngal congestion, allergic shiners, redness around nose and redness of conjunctiva are seen as a manifestation of an inflammatory reaction with a primary involvement of blood (rakta) and plasma tissue (rasa). Basically all groups showed a significant decrease in symptoms with slight differences in between each other. There were no significant alterations in the laboratory samples, even though there could be found a non-relevant reduction of eosinophil count for all three groups. The best results are found in group B with a reduction of most of the symptoms of more than 90 %. Only headache (83,5%) and loss of smell (68,5 %) were less improved, but still more or at least equal to the other groups. This is also shown in the total effect where 91,3 % in group B showed a marked improvement compared to only 78,9% in group A and 76,2 % in group C.

In their discussion the authors try to relate the different effects on the symptoms due to the different properties of the used compounds. They conclude that Ginger as well as Kataphala break the pathogenic pathway due to their sharp (tikshna) and hot (ushna) properties, the relief in symptoms is derived from a kapha and vata reducing (ghna) and a vata regulating effect (vata-anulomana). Furthermore, both are proven to be anti-inflammatory and analgetic drugs with a corresponding effect on the described symptoms. Kataphala is supposed to have an anticholinergic effect, which alleviates nasal hypersecretion and Ginger is supposed to have a local anti-inflammatory effect by inhibiting the release of inflammatory mediators. Haridra as blood cleaning and antitoxic (vishaghna) plant shows its effect primarily on plasma and blood tissue related symptoms. Due to an antihistaminic property it is also supposed to act directly on the allergic reaction and furthermore prevents the
release of inflammatory mediators. The authors conclude the importance of local cleaning for an immediate relief of local symptoms whereas an oral treatment has an overall systemic effect. The results might also show a superior effect of Kataphala compared to Ginger in local treatment.

In the second publication Bhakti et al. evaluated the effect of Haridra khanda, a mixture of Haridra (curcuma), Triphala, Trikatu (black pepper, long pepper, ginger), Trijata, Vidanga, Goghrita, Sita and others. 6 g were given twice a day as granulas to avoid fungal pollution due to climatic circumstances. This was compared with an additional local application of oil medicated with long pepper, in a dosage of 4-8 drops into each nostril for 7 days. The treatment was repeated three times with an interval of one week in-between.

A follow up was made after 2 months. The effects on signs and symptoms (kshavatu = sneezing, nasa-avarodha = nasal obstruction, nasa-srava = rhinorrhea, kasa = cough, shirah-shula = headache, kandu = itching, bhutva bhutva = recurrence, aruchi = tastelessness, svarabheda = hoarseness of voice, jvara = fever, shirogaurava = heaviness in head, shvasa kashtata = difficulty in respiration and gandha hani = anosmia) was assessed with a score ranging from 0 to 4. The overall effect was evaluated in the same manner as in the trial of Modha and blood samples were taken as well. From 32 patients 26 finished the treatment, reasons for drop-outs are not mentioned. According to the authors dust and pollution were the main causes. Again there is a significant reduction in both groups regarding all the signs and symptoms mentioned above. In this trial the eosinophilic count also showed a significant reduction while non-significant results were obtained for white blood cells and blood sedimentation rate. Again the group with local and systemic treatment showed better results with a marked improvement of 53,33% and a moderate improvement of 40% compared to 45,45% and 36,3% in the group that was only treated systemically.

The authors conclude that the used drug compound might help repair the body tissues and augment the resistance of nasal mucosa. Also it is discussed that many ingredients help to bring Vata and Kapha as main pathogenic factors back to normal levels. The oil for nose treatment helps to remove local obstructions and drains the blocked secretion due to its light and fast spreading (vyavayi) properties. Furthermore, they postulate a local immunmodulatory effect that reduces the inflammatory process and antibacterial and antiviral properties to prevent secondary infections.

Conclusion

Both trials show encouraging results for the treatment of allergic rhinitis with Ayurvedic measures. Even though there was no complete remission reported in both trials the significant results for all symptoms are a hint that a local and systemic Ayurvedic treatment can help reducing the burden for patients suffering from allergic rhinitis. These trials also discuss the possible ways of action and both give opportunity for further studies and discussion.
Nevertheless some criticism has to be done. In both trials there was just a small number of patients and there were no control groups. Allergic rhinitis depends on the exposure to allergens, therefore with a research period of two months or more a control group would have been necessary to exclude a systemic error, which could occur by a natural decline of allergens. Also there should have been a deeper statistical evaluation between the different groups within each trial to evaluate the described treatments with each other. Especially the publication of Bhakti lacks a comprehensive description of the whole setting and both do not explain the statistical methods that were used to evaluate the results. Still, as a treatment observation, both trials give a hint for the effectiveness as a symptom reducing treatment for allergic rhinitis. And it is useful for European therapists, since many of the used components are easily available. So with the upcoming allergic season, these trials may open up additional opportunities.

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