



The Ayurvedic Concept of Kshavathu as Related with Western Concept of Allergic Rhinitis – A Review

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i60B34858

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/78931>

Review Article

Received 18 October 2021
Accepted 22 December 2021
Published 25 December 2021

ABSTRACT

Individuals with Kshavathu for chronic periods develop long-standing complications which affect the immune system manifested as respiratory diseases. Poor life style habituates such as physical inactivity, exposure to mist, wind, dust, sleep disruption increase are the factors responsible for nasal disorder symptoms and their severity. As allergic rhinitis may results from an IgE mediated or a non- IgEmediated immune response, it is also important to have an anti-allergic strategy to make the patient symptom- free for a longer period. The attempt is made to minimize the allergic rhinitis features related to kshavathu such as paroxysmal sneezing, its crucial feature. Kshavathu not only indicates simple sneezing but a vast pathology exists behind this clinical condition. Kshavathualso is associated with several conditions that affects the patients day- to-day life pressuring the need to understand and identify the interventions that could help in managing the risk factors, especially with healthy individuals who are at risk of immune impairment. The Ayurveda protocol includes Nasya (nasal drops) and internal medication as possible interventions to reduce the risk of complications and improve immune response. Treatment modality emphasis the tolerance of nasal mucosa to the aerial allergens to keep the patient symptom - free. Nasya with Vata Kapha Hara medication and internal medicine which addresses both the factors Agni and

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elimination of the Doshas should be administered. Therefore, this review paper attempts to explain various consequences of Kshavathu mentioned in classic texts and also enlists the management of its complications.

Keywords: Sneezing; Brimshathu; Brishakshavam.

1. INTRODUCTION

Allergic rhinitis is a common condition produced by IgE mediated and non IgE mediated responses of nasal mucosa to air borne allergens, It affects 20% and 47 % respectively of the offspring if one or both parents suffer from allergies. It is a common type of chronic rhinitis. The allergic response may affect not only the nose (allergic rhinitis) but also every respiratory pathway (allergic bronchitis, allergic pharyngitis, allergic sinusitis, etc.). Ciliated epithelium which is present in all airways consists of goblet cells that secrete mucous, filter the incoming air and protect the structures. The sub- mucosa of both tracts has mucous glands and inflammatory cells. Evidence shows the allergen present in the upper airway will affect the lower airways leading to the inflammatory condition [1]. Severe allergic rhinitis has been associated with significant impairments in quality of life, sleep, and work performance. When the person suffers from allergic manifestation, improper medication and irregular dietary habits lead the disease into a chronic phase. This chronicity is difficult to manage completely. The clinically acute and late phases of an allergic response may coexist together. The acute phase within 5 – 30min, consists of sneezing, rhinorrhoea and nasal blockage. Late phase 2-8hours after exposure to an allergen leads to swelling, congestion and thick secretion of the nasal mucosa. Allergic signs are manifested in structures like eye, ear, pharynx and larynx. Finally, it leads to complications like recurrent sinusitis, nasal polyps, serous otitis media, and bronchial asthma [2]. As practically 20% of the population suffer from allergies one or another sometime in life. Avoidance of allergen, antihistamines, oral and topical steroids are control measures, while Desensitizing Immunotherapy is the curative strategy that requires longer duration. The acute phase of allergic rhinitis symptoms is compared with Kshavathu, while the Dosh Dustiprescribes a treatment protocol to get relief from acute symptoms. Kshavathu is one of the most common clinical presentations in a general consultation. It is enumerated as one among the Nasarogasin Brihatrayees. Acharya Charaka and Susruta are termed as

Kshavathu while Vagbhatacharya termed it as BrishaKshavam, and to be understood purely on a Yukthi basis. The term *BrishaKshavathu* itself denotes repeated sneezing. A single Vega presentation of sneezing should not be considered, as a clinical condition and also the Kshavathu mentioned in the Navaprathisyaya should not to be taken in-to account. For some individuals, before sneezing there will be some pricking type of pain inside the nasal cavity and then emerge the output sneezing. Sometimes, the discharge will be there from the nose and eyes. More often it may exist for some time or even more. So, the Kshavathu explained in Thridoshaja Prathisyaya should be considered and treatment should be advocated accordingly [3]. Various factors like pollution, global warming, seasonal variation, use of junk foods will lead to Kshavathu in human beings. The contemporary approach will not be a complete cure or satisfactory to patients always, so classical medicine is economically cost-effective and rectifies to break pathogenesis with better relief of clinical features and gradually preventing complication.

1.1 Aim of the Study

This review study has been undertaken with the following aim and objectives.

1. To review the literature related to the concept of Kshavathu available in different Ayurveda classics
2. To explore the treatment principles regarding the concepts of Kshavathu found in different classical text

2. MATERIALS AND METHODS

Extensive literary work has been conducted with the help of different Ayurveda classical texts such as CharakSamhita, SushrutaSamhita, AstangaHridayam, Yogaratnakara and BhaishajaRatnavali. Literary material also included references regarding the concepts of Kshavathu along with its management available in the Ayurveda classics. Different electronic databases such as Pub Med, Google Scholar

etc., and different online and print journals were also used as the source of data collection during the study.

3. REVIEW ON KSHAVATHU

Kshavathu – Ksu + Athu means sneezing, Ksavathu (sneezing) is a disease where in sneezing is the crucial feature. Individuals with kshavathu for chronic period develop long standing complications which affect the immune system and respiratory diseases. Poor life style habituates such as physical inactivity, exposure to mist, wind, dust, sleep disruption increase are the factors responsible for nasal disorder symptoms and its severity. Ksavathu is one among major diseases in the present era, which is mainly induced due to the inevitable pollution, climate variation and lifestyle change mainly due to vatakapha predominating. Inhaling strong smell like chillies, tobacco, exposure to sunrays, inserting threads, grass etc. in to the nose and other causes which aggravates Vata, when the cartilage of the nose gets scratched, Vata getting obstructed, moves upwards to *Sringataka* (Shiromarma) and getting dislodges from that spot, gives rise to too much of sneezing, Bhraaksava also known as Kshavathu. This is the Samprapthi explained by Vagbatacharya [4]. Charaka, when the Vata residing overhead deviated its path and reach NasasrithaMarma it causes intense sneezing [5]. Susrutha explained Kshavathu is of 2 types Doshaja and AganthujaKshavathu.

DoshajaKshavathu (due to imbalance in the doshas) is chronic in origin caused due to imbalance in the Doshas. The vitiated Vata and Kapha Doshas get lodged in the nose due to Sroto-Vaigunya caused by indulgence in the causative factors of NasaRoga. The aggravated Doshas settled in Nasa vitiate the vital points i.e. the Marmas and exhibits the symptom of the disease i.e. sneezing [7]. Due to paroxysmal sneezing, there will be an alteration in the nasal secretion that leads to nasal blockage. In this

chronic stage, the Agni (digestive fire) is impaired and leads to the accumulation large amount of Ama (unmetabolized waste which cannot be used by the body). AganthujaKshavathu is due to usage of strong/pungent-smelling substances like chilly, mustard, dry ginger, long-pepper, etc. or due to exposure to sunlight for a prolonged time or due to inserting threads in to nasal region causes trauma to the nasal cartilages and SringatakaMarma and causes Sneezing. Sushruta also mentioned one more NasaRoga with similar pathology, it is known as Bhraaksathu and it is due to the Kapha which had accumulated in the head earlier getting liquified by the heat of pitta, flows out of the nose in great quantity often in the form of thick, half-ripe and salty liquid [8]. Sushruta and Bhavaprakasha only narrated about Doshaja and AganthujaKshavathu and treatment also should be considered accordingly. Sushruta explain the mechanism of sternutation sneezing as 'Pranoadanosamonastapravartateshabda' which means both Prana and UdanaVayu move in an upward direction towards the head and are thrown via nose with sound and that is known as sternutation (sound of sneezing) [9]. Differential diagnosis of this condition includes Pratishyaya and DushtaPratishyaya.

4. PRATISHYAYA

Pratishyaya is NasagataRoga described as a cause for KasaRoga, as a Purvarupa of Rajyakshma and as a symptom of Vega Vidharaj, Kshayaja as well as VishamasanajaYakshma. This disease is also known for its recurrence and chronicity if not treated from its root. A sedentary Life style like having exposure to cold weather, Air conditioner and cooler and food habits like consuming junk foods, ice cream, cold drinks, curd, sour items like pickles, sauce are the major causative factors of this disease. Creates headaches, fatigue, limits routine activities, interferes with sleep and results in poor work performance. Vata Dosh along with

Table 1. Samanya Nidana of Doshaja Kshavathu [6]

Aharaj & Viharaja Nidana	Vagbhata	Sushruta	Charaka
<i>Ajeerna, Sheeta Ambu</i>	-	-	+
<i>Ati Ambupana</i>	+	-	-
<i>Vega Sandharana, Rajah Sevan, Dhooma Sevana</i>	+	+	+
<i>Ratrijagarana, Ati Divaswapana</i>	+	-	+
<i>Avasyaya</i>	+	+	+
<i>AtiJalaKrida, Neechaatiucchaupadhan, Peethana Anyana Varina</i>	+	-	-

Rakta got vitiated due to exposure to Avashyaya (morning mist), Purovata (type of wind) and Raja (dust), Apathya Aharaviharas resulting in Pratilomagati of Vata and Doshas getting lodged over the head leading to Pratisyaya. Samprapti can be explained as follows in which Sama Avastha of Kapha/Pitta/Rakta is there but a vitiation of Vayu is present. Here the causative factors are mainly Vata Vardhaka like Vega Dharana, Tapa-Sevana, Manasika. Secondly Kapha/ Pitta/Rakta Pradhana causative factors lead to its vitiation, whereas Vata is in Sam Avastha. Finally Vata and Kapha/Pitta/Rakta are individually vitiated by their etiological factors. In all the three types of Samprapti, the Gati of Vata (Udana) is obstructed by Kapha/Pitta/Rakta causing its Avarana. *Pratiksana Syathi Etha Pratisyaya* which means the individual will be having perpetual Gamana of Doshas and there by continuous sneezing along with running nose. This condition is known as Pratisyaya which has Vata, Pitta, Kapha, Rakta and Sannipathaja variety. Premonitory symptoms are sneezing, heaviness of the head, general body malaise and horripilation. In Vataja Pratisyaya, along with sneezing, nasal blockage, thin nasal discharge, dryness in throat, lips and palate region, throbbing pain in the temple region and hoarseness of voice are explained. Pittaja Pratisyaya's clinical features are thirst, Fever Furuncles in the nose, Giddiness, Inflammation of the tip of the nose Hot & yellow nasal discharge. In Kaphaja Pratisyaya the symptoms are anorexia, Difficulty in breathing, Vomiting, Heaviness in the body, Sweetness in the mouth, itching and Whitish nasal discharge. Raktaja Pratisyaya features are stiffness in the chest, Copper-colored eyes, foul breathing, itching in the ear, eye and nose. In Sannipataja Pratisyaya Symptoms are Sarvaja Lakshana, Akasmatvridhishanti [10]. Management for navapratisyaya is Kanji swedana, Amlapathartha, usnaahara, adarkaswarasa with ksheera and Guda. Pakva Pratisyaya with shirovirechananasya, kavala, Gandusa, dhoomapana. Vataja origin Praishyaya should be taken Ghrita made by Vidaryadi Gana, Pancha Lavana Ghrita, Nasya and Ardita Chikista such as Navana, Moordhini Thaila, Upanaha, Nadi Sweda. In Pitta and Raktaja Sita Veerya's drugs application, Nasya Thaila was prepared out of Triphala, Yasti, Tilvaka, Nisa and Ksheera. Sushruta explain Nasya with Surasadi Gana and Dhoomapana because of its Krimighna property. Kaphaja Pratisyaya treated with gaurasarsapalepam, snehapana follow by

vamana, nasyathaila with patu, vyosa, jiraka and goats urine. In Sannipataja Katu, Tikshna drugs are used for Nasya and Kavala. Oral administration of Vyoshadi Vatakam, Dasamoola Kashyam [11]. When it's not treated timely may lead to complications and act as a Nidanarthakara Roga for Dushta Pratisyaya.

5. DUSHTAPRATISHYAYA

All the Pratisyaya when neglected lead to Dushtapratisyaya, leading to torment all the organs of the body. Symptoms include indigestion, fever, dyspnoea, cough, pain in the chest and flanks gets greatly aggravated without any reason, produces foul-smelling mouth and swelling of the face, drying of the moisture of the nose, opening and blocking of the passage of the nose often, discharge of fluid resembling pus, black and red in color and nodular, in this fluid long, unctuous, white and minute worms develop. In all of them, the Pakwa Lakshanas is the feel of Angalaghavam, subsiding sneezing, fluid discharge starts to unctuous and yellow and inability to understand taste and smell [12]. Sushruta explain nose becomes very moist or very dry again and again, gets swollen sometimes and widened sometimes, there is a bad smell during both inspiration and expiration and he does not recognize the smell. Sadhyasadyata of Dushta Pratisyaya is Yapya or Asadhya. Treatment principles are Rajayakshama and Krimi Nashana Chikitsa. Varthi should be made with Vyosha, Krimijit, Pootimatsya, flower of Agnimantha, Aswavit, Aswamootram, Gajamootram for Dhooanam. Nasya, Ghritapana, Vamana, Virechana, Dhoomapana, Kavalagraha.

6. DISCUSSION

Considering the above matters, in this stage it is important to plan the treatment which addresses both the factors Agni and elimination of the Doshas. Importance of the treatment to have an anti-allergic effect to make the patient symptom-free for a longer duration. Treatment starts with Nidana-Parivarjan (avoiding the cause), along with external therapies oral medication is also necessary which helps to remove the pathology and improves body immunity. Samanya Chikista includes, the patient should reside in a room devoid of cold ventilation/breeze and depending on the Avastha of Dosh he can resort for Sneha-Sweda-Vamana-Dhooma-Gandoosha along with Laghu-Amla-Snigdha-Ushana Bhojanam and a tie a warm band of cloth around

his head to avoid further exposure from cold/windy atmosphere [13]. Whereas in Visheshachikitsa for Kshavathu includes PradhanaNasya, Swedanam follow by SnaihikaDhoomapana are mentioned along with symptomatic treatment. Nasya is the procedure where administration of oils, ghee and medicated fresh herbs through nasal route. Nasya in which the medicine administered through the nasal route reaches SringatakaMarma and the potency of the drug spreads through the Siras of Nasa, Akshi, Karna and does Shodhana of the Shiras. It helps mainly in Urdhwa Jatrugata Vyadhi, helps in Sukha Uchwasa Nishwas, Kshavathu, SukhaSwapnaPrabhodana and does Shiras-Vadana- IndriyaVishuddhi [14]. Nasyapurva karma is Abhyanga and Swedana are done. Abhyanga makes Mruduta of Doshas and Swedana brings Vilayana (liquefaction) of accumulated Doshas. Contemporary science explains Abhyanga increases the local blood supply and Swedana liquefies the mucous. It increases the permeability of blood vessels due to vasodilatation, which makes the drug absorption faster. In Pradhana Karma, the drug in Swarasa, Churna, Thaila form is administered into the nostrils in the head-low position of the patient. Administered drugs reach the Shringataka and travel through different Siras, it spreads to other parts of head like Netra, karna and removes the alleviated doshas. Based on drug property, it causes Srotoshuddhi and makes the AnulomanaGati of Vayu (mitigation of Vayu). UrdhvangaAbhyanga and Swedana help to remove the doshas and bring SrotomukhaVishodhana in Pashchata karma. Various medicated drugs are used in Nasya therapy depending upon the chronicity of disease. Nasya therapy gives nourishment, pacify or eliminates the alleviated doshas, and clears the sinus cavity, ear, throat, and head region. It balances tridoshas especially Vata and lubricates the nasal passages, improves voice and performs the function of detoxification. Specific treatment modalities like Nasya are great advantages in the management of Kshavathu. Types of Nasya such as VirechanaNasya in which dry medicated powders were blown into the nose. BruhmanaNasya such as medicated ghee, milk, oil is administered through the nose which pacifies VataDosh. ShamanaNasya medicated decoctions, oils, juice of fresh herbal leaves are used in this therapy [15].

Shuntyadi Taila Nasyam which has Sunthi, Kusta, Kana, Vella, Draksa drugs are indicated. Even

though it is Theekshna in nature, Taila Moorchanam with specific medicines makes this oil compatible with the Vata Kapha condition [16]. Pippalayadi Thaila which contain Sunthi, Kusta, Kana, Bilwa, Draksa is used for Nasya Proyaga, Chitraka Haritaki which is capable to promote the power of digestion which will be given internally in upper respiratory conditions [17]. Bhavaprakasha explains Kshavathu Nasaka Thaila which is made up of decoction with dried Sunthi, Kushta, Kana, bark of Bilva and raisins (335 each). Prepare Kalka out of the same ingredients by taking them in a measure of 20g each add 500 ml of sesame oil and the same quantity of cow's ghee. Combine all these materials and the oil thus obtained is used for Nasya daily to cure Kshavathu. Internal medication advised in Pratshiyaya Chikitsa is taken such as Vyoshadivatakam, Chitraka Haritaki Lehyam where drugs are Vata Kapha Hara property. Charaka, explains Pathyapathya, includes Vartaka, Kulaka, Shunti, Pippali, Maricha, Mudga, Kulatha, Yusha, Ushnajalapana, Langhana, Nirvata Syana and Asana, Chesta, Guru Ushna Vastra Dharana, Teekshna Dravyayukta Virechana and Nasya, Dhmapana, Ruksha Padartha Sevana, Yavanna and Yushasevana. Apathya (to be avoided) are Sheetajalapana and Snana, Sheetavayu Sevana, Exposure to dust, smoke, Adhika Vyayama, Vyavaya and Vegadharana. Ghritapana and Snehananasya is Varjya in Nava pratshiyaya, Anupamamsa, Dadi, Masha, Kulattha Arvarjya [18].

7. CONCLUSION

Ksavathu is one of the major diseases in the present era, which is mainly induced due to the inevitable pollution, climate variation and lifestyle change mainly due to Vata Kapha predominating. Special attention should be given to ama while treating the disease as improper treatment will lead to complication and more difficult to treat. These severe phases make the patient in an immuno-compromised state. So Ayurvedic formulations and Pathya Apathya can be adopted for more effective treatment. Nasya helps to control acute or sub-acute exacerbation of the symptoms of Ksavathu.

NOTE

The study highlights the efficacy of "Ayurveda" which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical

science and can be utilized partially if found suitable.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:

The peer review history for this paper can be accessed here:

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