



A REVIEW ARTICLE ON THE ROLE OF KAPHAKETU RASA IN OBSTRUCTIVE AIRWAY DISEASES

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ABSTRACT: -

In the current situation, individuals are more inclined to different illnesses because of unfortunate resistance emerging because of way of life changes, smoking, and air contamination. Unfortunate way of life is answerable for Kapha overwhelming illnesses like Kasa, Shwasa, and other metabolic as well as auto-invulnerable problems. In Ayurvedic pharmaceuticals, Kaphaketu Rasa (KKR) comprising of *Aconitum chasmanthum* Stapf ex Holmes (*Vatsanabha*), cleansed Borax (*Tankana*), Burned Conch shell (*Shankha Bhasma*), *Flautist longum* Linn., and *Zingiber officinale* Roxb. Has been demonstrated for Kapha related sicknesses. Eight assortments by the name of KKR are recorded in Ayurvedic texts. To comprehend the reasoning of referencing these assortments and to investigate the possible region of its convenience in contemporary clinical circumstances, this study was performed. Data with respect to this detailing was gathered from the significant Ayurveda texts as well as electronic hotspots for accessible logical proof, business accessibility of the plan was likewise checked. The accessible information upholds its utilization as a powerful Kapha conciliating detailing while logical proof backings its activity as a mitigating, pain relieving, antipyretic, antispasmodic, hostile to unfavourably susceptible as well as mucolytic specialist. Be that as it may, this detailing should be concentrated on through creature and clinical examinations to comprehend and investigate its method of activity, drug cooperations, portion reaction connections, antagonistic responses, and so forth, in various clinical circumstances. Persistent obstructive pneumonic sickness (COPD) is a typical lung infection causing limited wind stream and breathing issues. It is in some cases called emphysema or constant bronchitis. In individuals with COPD, the lungs can get harmed or obstructed with mucus. Side effects incorporate hack, at times with mucus, trouble breathing, wheezing and sleepiness. Smoking and air contamination are the most well-known reasons for COPD. Individuals with COPD are at higher gamble of other medical conditions. COPD isn't reparable however side effects can improve in the event that one abstains from smoking and openness to air contamination and gets antibodies to forestall diseases. It can likewise be treated with medications, oxygen and aspiratory recovery.

KEYWORDS: - Kaphaketu Rasa, oxygen, Shwasa, smoking, Ayurveda.

INTRODUCTION: -

Kaphaketu Rasa (KKR) is a classical *Ayurveda* (herbo-mineral) *Kharaliya* (prepared in mortar) formulation. It is indicated in diseases arising due to aggravation of *Kapha* like *Jwara* (febrile conditions), *Kasa* (cough), and *Karnaroga* (diseases of the ear), etc., *Aconitum chasmanthum* *Stapf ex Holmes*, incinerated conch shell (*Shankha Bhasma*), Borax (*Tankana*), and *Piper longum* Linn. (*Pippali*) are the main ingredients of this formulation. By the name of KKR, eight variant formulations have been mentioned in different texts of *Ayurveda*. These formulations differ in the ingredients, therapeutic dose, and indications thus changing their efficacy and providing wider options for *Ayurveda* practitioners to prescribe KKR as per clinical symptoms and severity of the disease. To understand the rationale behind mentioning different varieties of the KKR in *Ayurvedic* texts and exploring the potential usefulness of this formulation in present-day disease entities, the present review was performed. Obstructive lung disease is a category of respiratory disease characterized by airway obstruction. Many obstructive diseases of the lung result from narrowing (obstruction) of the smaller bronchi and larger bronchioles, often because of excessive contraction of the smooth muscle itself. It is generally characterized by inflamed and easily collapsible airways, obstruction to airflow, problems exhaling, and frequent medical clinic visits and hospitalizations. Types of obstructive lung disease include; asthma, bronchiectasis, bronchitis and chronic obstructive pulmonary disease (COPD). Although COPD shares similar characteristics with all other obstructive lung diseases, such as the signs of coughing and wheezing, they are distinct conditions in terms of disease onset, frequency of symptoms, and reversibility of airway obstruction. Cystic fibrosis is also sometimes included in obstructive pulmonary disease.

MATERIAL AND METHODS: -

KKR is a Kapha-Vata pacifying drug, mainly acting on aggravated Kapha. All eight varieties of KKR mentioned in *Ayurvedic* literature, except variety eight are of Kapha-Vata pacifying nature. However, their composition is not uniform which could be due to the fact that, *Ayurveda* clinicians in ancient times were preparing medicines for their clinical practice on their own by using different combination of ingredients and owing to the Kapha pacifying nature of the drug they have named it so. Depending upon the severity of underlying pathology they might have used this formulation by adding more potent Kapha pacifying ingredients like *Piper nigrum*, *Hartaal*, *Pushkarmoola*, etc. Variety eight mentioned in is metalo-mineral formulation having *Rasayana* properties which can be used in clinical entities of Kapha origin. However, only variety 1 is cited in *Ayurvedic* Formulary of India and is also commercially available in market today. Further researches related to different varieties may lead us to the relevance of explaining different varieties of KKR and their clinical significance can also be understood with the help of relevant studies in different diseases. *Ayurveda* physiology revolves around *Tridosha* (three humors) i.e., *Vata*, *Pitta* and *Kapha*. Physiological limits of these humors is observed in the state of health, whereas derangement of any one or combination of these cause diseases. Pathological accumulation of Kapha has the tendency to initiate inflammation in the body. Vitiated Kapha can cause obstruction in channels (*Srotorodha*) due to *Ama* (harmful undigested metabolic waste) which on getting chronic may initiate the inflammation at the site of involvement (*Sthansanshraya*). KKR is *Katu* (Pungent), *Tikta* (bitter) *rasa* dominant formulation having *Deepana*, *Pachana* and *Soshana* properties. KKR, due to its *Katu* *rasa* (pungent), *Ushna*, *Tikshna* (penetrating), fast acting properties (*Vyavayi-Vikasi*), has the ability to reduce the aggravated Kapha. *Deepana*, *Pachana*, and *Shoshana* actions of KKR improve the digestive power and help in clearing the obstructed channels (*Srotorodha*), thus relieving the Kapha associated inflammation. Condition of aggravated Kapha, *Agnimandhya* (Indigestion), and *Ama* (undigested food) are observed in *Kasa*, *Amavata*, *Shotha*, etc., and in present-day clinical entities like obstructive airway diseases, obesity, COVID-19 and other autoimmune disorders. Owing to its properties, KKR has been indicated mainly in *Kaphaja* disorders associated with *Shotha* (inflammation), *Jwara* (febrile conditions), *Kasa* (cough), *Karnaroga* (disease of ear), *Mandagni* (reduced metabolism), etc. Although very less scientific data is available related to KKR but evidences of its action as anti-histaminic, anti-asthma and anti-inflammatory activity have been reported in some studies. The possible mode of action of KKR on the basis of its properties according to fundamentals of *Ayurveda* is depicted in Figure 1. The scientific literature regarding the ingredients of the formulation points towards its potential as an anti-inflammatory, analgesic, antipyretic, anti-allergic *Ayurvedic* formulation however the scientific data of KKR as a formulation is scarce which warrants the need and scope of exploring this drug in different experimental as well as clinical settings.

Scope of pharmacological actions of KKR on the basis of properties of its ingredients have been listed in. Preparations containing mineral drugs as main ingredients are called rasa yogas. They may be in pill or in ash form. Different herbal and mineral ingredients are there in different rasaaushdhis. All the ingredients are used in the pure and detoxified form. Where rasa and gandhaka are drugs, kajjali is prepared first with rasa (parad) and gandhaka. After the preparation of kajjali, the other drugs are added in mentioned quantities. The potency of such a rasaaushdhi prepared properly based on the principles of Ayurveda is definitely high and result-oriented without side effects. Kapha Ketu rasa is such a rasaaushdhi that is potent and is anti-allergic in action. Various studies show that the Kapha Ketu rasa has anti-histamine properties. This article is loaded with information regarding the kaphaketu rasa, ingredients, method of preparation, dosage, indications, and contraindications of kaphaketu rasa.

Kaphaketu rasa is mentioned in ayurvedic rasagranth Bhaishjya Ratnavali. The kaphaketu rasa is an ayurvedic herbomineral formulation composed of a variety of herbal and mineral ingredients. As the name indicates this herbal formulation is a remedy to cure various Kapha-related issues. The location of Kapha in the body as mentioned in the ayurvedic text Ashtang hridya is the thorax, throat, lungs, joints, head, and stomach. Ailments associated with all these locations may involve the Kapha dosha predominance. The symptoms of vitiated Kapha are a watery nose, cold, throat obstruction, excessive salivation, breathing issues, lethargy, and congestion. In such ailments, kaphaketu rasa plays a significant role. This rasa balances the Kapha dosha as it promotes strength and fertility. Also, it is helpful to improve bone and muscle strength.

- **INDICATION: -**

Pinasa (runny nose due to underlying cause), Svasha (Breathlessness), Kasa (Cough), Shiroroga (Headache), Galgrah (Heaviness in the throat). These are the classical indications of Kapha Ketu rasa.

- **INGREDIENTS: -**

- i. Shuddha Tankan (Purified ash of borax)
- ii. Magadhi (pippali)
- iii. Shankha Bhasma
- iv. Vatsanabha (detoxified Aconitum ferox)
- v. Aradrak Swarasa

- **DESCRIPTION OF INGREDIENTS: -**

1) SHUDHA TANKAN (PURIFIED ASH OF BORAX): -

Tankan is borax. It is prepared by placing small pieces of Tankan on fire and collecting them after dehydration. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ is the formula of pure tankan and $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ is the formula after dehydration. The properties of Tankan are – Ushna (hot), vipaka is katu (pungent). It is useful in a variety of ailments like cough problems, asthma, and respiratory problems.

2) MAGADHI (PIPPALI): -

Pippali is the best Kapha pacifier. It is hot in potency hence reducing the episodes of watery discharge from the nose, throat infection, cold, and phlegm. It is one of the best-known vata pacifiers. It also acts as a catalyst as it enhances the rate of reaction and enhances the potency of ingredients in herbal remedies. It gives relief from cold, and phlegm. It reduces Vata and Kapha and increases Pitta. It is hot in potency.

3) SHANKHA BHASMA (CONCH SHELL): -

Shankha bhasma is mentioned in rasagranth Rasatarangini. It is effective in ajirna, grahani, amlapitta, parinamshoola, yakrit pliha vridhi. Shankha is cold in potency and hence acts as a pitta shamak (pacify the pitta dosha) mineral. It helps to enhance the action of the other ingredients.

4) SHUDDHA VATSANABHA (DETOXIFIED ACONITUM FEROX): -

It is an erect, perennial herb, that occurs in subalpine and alpine zones of the western Himalayas. It is used as the main ingredient of Kapha Ketu rasa. It is a plant-based poison but acts as a medicine if used after a proper purification process. It has antipyretic, analgesic, anti-rheumatic, appetiser, and digestive properties. It is used in Ayurveda only after purification. It is used in Tridosha vikara, especially in Kapha-Vataj roga such as cough, bronchitis, and fever.

5) ARDRAKA SWARASA: -

(as bhavana dravya) is hot-pungent-drying in action. It is a well-known herb for respiratory ailments. It reduces Vata and Kapha and increases Pitta. It is hot in potency. It works on the Digestive and respiratory systems. As a bhavana dravya, it enhances the efficacy of Kapha Ketu rasa multiple times.

▪ METHOD OF PREPARATION: -

Take 50 grams of each of Shuddha tankan, Magadhi (pippali), Shankha bhasma (conch shell calx), and Vatsnabha (Aconitum ferox). Add all the ingredients in the Kharal of stone and mix them properly. After mixing, give 3 bhavnas of Adrak swaras and mix it properly. Make tablets of 1 Ratti or 125mg. Dosage— One to two tablets or 125mg to 150mg can be taken twice daily with water. Anupana— Kapha Ketu rasa can be best effective with proper Anupama. The anupana can be ginger swaras or honey for cough, cold or other ailments.

▪ THERAPEUTIC USES & INDICATIONS: -

Important therapeutic uses and key benefits mentioned in classical texts are pinasa (runny nose due to any cause), Kasa (cough), svasa (breathlessness), urdhvanga rogas (diseases of the upper respiratory tract). The other important indication of Kapha Ketu rasa are as-

- i. Fever due to any underlying problem of Respiratory issues.
- ii. Watery discharge from the ear, nose, or throat.
- iii. Various eye-related problems.
- iv. Problems associated with throat or complaints of painful swallowing
- v. Various nose problems (sinusitis)
- vi. Disorders of the throat
- vii. Headache
- viii. Neurological problems
- ix. Tooth decay or problems associated with teeth.

▪ CONTRAINDICATIONS: -

Should be taken after consultation with a physician. Overdose can cause serious complications. Should be avoided in the case of lactating mothers or pregnant women. Keep out of the reach of children.

SYMPTOMS: -

The most common symptoms of COPD are difficulty breathing, chronic cough (sometimes with phlegm) and feeling tired. COPD symptoms can get worse quickly. These are called flare-ups. These usually last for a few days and often require additional medicine. People with COPD also have a higher risk for other health problems. These include:

- lung infections, like the flu or pneumonia
- lung cancer
- heart problems
- weak muscles and brittle bones
- depression and anxiety.

Common symptoms of COPD develop from mid-life onwards. As COPD progresses, people find it more difficult to carry out their normal daily activities, often due to breathlessness. There may be a considerable financial burden due to limitation of workplace and home productivity, and costs of medical treatment. COPD is sometimes called emphysema or chronic bronchitis. Emphysema usually refers to destruction of the tiny air sacs at the end of the airways in the lungs. Chronic bronchitis refers to a chronic cough with the production of phlegm resulting from inflammation in the airways. COPD and asthma share common symptoms (cough, wheeze and difficulty breathing) and people may have both conditions.

CAUSES: -

Several processes can cause the airways to become narrow and lead to COPD. There may be destruction of parts of the lung, mucus blocking the airways, and inflammation and swelling of the airway lining. COPD develops gradually over time, often resulting from a combination of risk factors:

- tobacco exposure from active smoking or passive exposure to second-hand smoke;
- occupational exposure to dusts, fumes or chemicals;
- indoor air pollution: biomass fuel (wood, animal dung, crop residue) or coal is frequently used for cooking and heating in low- and middle-income countries with high levels of smoke exposure;
- early life events such as poor growth in utero, prematurity, and frequent or severe respiratory infections in childhood that prevent maximum lung growth;
- asthma in childhood; and
- a rare genetic condition called alpha-1 antitrypsin deficiency, which can cause COPD at a young age.

COPD should be suspected if a person has typical symptoms, and the diagnosis confirmed by a breathing test called spirometry, which measures how the lungs are working. In low- and middle-income countries, spirometry is often not available and so the diagnosis may be missed.

DISCUSSION: -

COPD is included in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases (NCDs) and the United Nations 2030 Agenda for Sustainable Development. WHO is taking action to extend diagnosis of and treatment for COPD in a number of ways. The WHO Package of Essential Noncommunicable Disease Interventions (PEN) was developed to help improve NCD management in primary health care in low-resource settings. PEN includes protocols for the assessment, diagnosis and management of chronic respiratory diseases (asthma and chronic obstructive pulmonary disease), and modules on healthy lifestyle counselling, including tobacco cessation and self-care.

Rehabilitation 2030 is a new strategic approach to prioritize and strengthen rehabilitation services in health systems. Pulmonary rehabilitation for COPD is included in the Package of Interventions for Rehabilitation, currently under development as part of this WHO initiative. Reducing tobacco smoke exposure is important for both primary prevention of COPD and disease management. The Framework Convention on Tobacco Control is enabling progress in this area as are WHO initiatives such as MPOWER and mTobacco Cessation. Further prevention activities include the WHO Clean Household Energy Solutions Toolkit (CHEST) to

promote clean and safe interventions in the home and facilitate the design of policies that promote the adoption of clean household energy at local, programmatic and national levels. The Global Alliance against Chronic Respiratory Diseases (GARD) contributes to WHO's work to prevent and control chronic respiratory diseases. GARD is a voluntary alliance of national and international organizations and agencies from many countries committed to the vision of a world where all people breathe freely.

CONCLUSION: -

The Kaphaketu rasa is one of the best rasaushdhi to manage the ailments like allergy, aggravated Kapha, mucus, cold, and other variety of ailments mentioned above. The kaphaketu rasa of planet Ayurveda is best and loaded with authentic and natural herbal minerals as per classical texts. The formulation is cent percent result-oriented, best, GMP approved and serving mankind for decades. Out of different varieties of KKR mentioned in Ayurvedic texts, commercially available KKR is of great therapeutic value for *Kapha* related acute and chronic inflammatory disorders. It has been used traditionally for the management of *Kapha* related diseases involving respiratory, digestive and musculoskeletal system. On the basis of the scientific evidences presented in this review, it can be hypothesized that KKR has a great scope in Ayurvedic clinical practice as an anti-inflammatory, analgesic, antipyretic, antispasmodic, and anti-allergic drug. However, there is a paucity of clinical data on this formulation. Further well-designed studies are required to explore its mode of action in present day clinical conditions.

REFERENCES: -

1. The Ayurvedic Formulary of India. Part 1. Rasayoga: 41.. 20032nd ed. Delhi Ministry of Health and Family Welfare Publications Civil Lines:715 Sec. 20.
2. Hariprapannaji VP Rasayoga Sagara. Dwitiyabhaga. Reprint. Ver. 226-237. 1998 Varanasi Krishnadas Academy:218
3. Ram Choubey PD Brihad Rasaraj Sundar.. 20003rd ed. Varanasi Chaukambha Orientalia:292–3
4. Bhatt SG, Sangraha Rasendra Sara Hindi Commentary by Dr. Indradev Tripathi. Ch. 2, Shloka 30-32. 2018 Varanasi Chaukambha Orientalia:343–4
5. Das SG Bhaisajyaratnavali. Hindi Commentary by Shri Kaviraja Ambikadatta Shastri. Ch. 5, Shaloka 860, 861-863. 2018 Varanasi Chaukambha Orientalia:153
6. Sharma SS, Tarangini Rasa. Hindi Commentary by Dharmanand Shastri Tarang 24, Shloka 106-109. 19739th ed. Delhi Motilal Banarsidas:667
7. Dhundhuknath A Rasendra Chintamani. Hindi Commentary by Sidhinandan Mishra. Ch. 9, Shloka 25-27. 2011 Varanasi Chaukambha Orientalia
8. Vaidya SD Rasa Chandanshu. Hindi Commentary by Pro. Ghyanendra Pandey. Paricheda 1. 2010 Varanasi Chaukambha Krishndas Academy:431–2
9. Bhatt SG, Sangraha Rasendra Sara Hindi Commentary by Dr. Indradev Tripathi. Ch. 2, Shloka 1. 2018 Varanasi Chaukambha Orientalia:474
10. Ram Choubey PD Brihad Rasaraj Sundar.. 20003rd ed. Varanasi Chaukambha Orientalia:428
11. Ram Choubey PD Brihad Rasaraj Sundar.. 20003rd ed. Varanasi Chaukambha Orientalia:466
12. Das SG Bhaisajyaratnavali. Hindi Commentary by Shri Kaviraja Ambikadatta Shastri. Parishista 2, Shaloka 12-13. 2018 Varanasi Chaukambha Orientalia:1239.