Critical Review of Kalka Kalpana

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ABSTRACT: Kalka (Herbal Paste) is one of the potent dosage forms useful in Ayurvedic pharmaceutics and therapeutics. Its description is found scattered in Ancient Ayurvedic classics. Here an attempt is made to review Kalka critically from the Ayurvedic classic Sushruta Samhita. Data research was carried out by following special criteria containing internal or external administration, diseases, wound healing, cosmetology etc. Alot of references were found regarding utility of Kalka in various procedures recommended in management of different diseases. Sushruta Samhita has introduced distinctive formulations of Kalka along with the way or mode of its applications in different diseased conditions. Present review refects the importance of both potency and applicability of Kalka Kalpana and the classic Sushruta Samhita for its great contribution.

KEYWORDS : Ayurveda, Herbal Paste, Sushruta Samhita, Bhaishajya Kalpana, Shadvidha Kashaya Kalpana, Ayurvedic Pharmaceutics, Ayurvedic Formulations.

INTRODUCTION

Panchavidhakashaya Kalpanas being the most widely used formulations as a starting dosage form as well as a base for many different dosage forms. While narrating the types of Kashaya Kalpanas, Acharya Sharangadhara adds that all these five fundamental preparations are light for digestion in their descending order.[1] i.e. Swaras is the heaviest (Guru) and Phanta the lightest (Laghu) preparation for digestion. According to Acharya Vagbhata, Panchvidhakashaya Kalpanas are potent in their ascending order.[2] Swaras is the most potent preparation and Phanta the least potent one. The reason for this may be the percentage and form of active principles (Virya) present in a preparation. Acharya Sharangadhara renders much importance to "Agni" of the patient and that of Acharya Vagbhata to "potency" of the drug. According to Acharya Charaka, Panchvidhakashaya Kalpanas should be used after proper discrimination. One has to ascertain the Sharirabala as well as Agnibala (Strength and Digestive capacity) of the patient and also Vyadhi Avastha and Vyadhi Bala (chronicity and severity of the disease) and accordingly the appropriate preparation must be advocated. Panchvidhakashaya Kalpanas are more popularly used in day to day clinical practice without much complication. Kalka is second and one of important Kalpana among Panchvidhakashaya Kalpanas. Fresh or dry herb is converted into a paste by rubbing it on a stone with small quantity of water. Kalka Kalpana is suggested for Parthivansha Pradhana Dravyas. Definition "A soft mass or paste with juice, prepared by pounding the drug is known as Kalka." [3] While defining Kalka, Acharya Vagbhata mentions about the equipments required to prepare it. He says, "Kalka is a paste prepared by grinding the drugs with the help of stone or teeth." [4] According to Sharangadhara, "Kalka is soft paste, of a wet or dry drug prepared by grinding wet drug without adding water and dry one with little quantity of water."

Synonyms Prakshepa, Avapa, Kalka, Pinda.[5]

MATERIALS & METHODS

All the information about Kalka Kalpana was collected and compiled from Ayurvedic Samhitas, compiled text books and journals.

METHOD OF PREPERATION

The selected drug, whether it is fresh or dry herb is properly clean with water and wiped with a clean dry cloth. Ground it well with Shilapishta (rubbing it on stone) to become soft paste form and devoid of any fibrous part. In case of dry herbs, it is powdered first and filtered with a cloth to prepare powder. Then it mixed with appropriate quantity of water and then rubbed in pestle and mortar to form paste. In case of fresh herbs, they are first chopped into fine pieces, pounded and macerated in mortar and pestle until the paste becomes fine.

DOSAGE AND SHELF LIFE OF KALKA

The dose of Kalka (paste) for internal use is 1 Karsha (12 gms). [5] Its Saviryata Avadhi is said to be Sadyosevan means it consumed immediately after the

preparation. For external use of Kalka, sufficient quantity was used depending upon the area to be applied.

IMPORTANTS OF KALKA KALPANA

1. It is used as a drug for e.g. Rason Kalka for Vatavikara. 2. Kalka is used in many preparations of other secondary preparations like Guti, Avleha, Sandhan Kalpana, Sneha Kalpana etc. 3. Kalka is also used for adjuvant while administering other solid preparation or liquid preparation. 4. Kalka used for the Shodhan and Maran of Ras-dravyas, e.g. Rason Kalka for Parad Shodhan. 5. It is mostly used for external application, for example Nimb Kalka for Vrana Chikitsa and Kushtha Chikitsa.

ANALYTICAL PARAMETERS FOR QUALITY ASSESSMENT OF KALKA[6]

1. Colour 2. Odour 3. Taste 4. Water soluble Extractive 5. Alcohol soluble extractive 6. Acid value - pH 7. Total ash value 8. Total solids 9. Moisture content 10. TLC, HPTLC identification 11. Pesticide residue.

Kusthadi Kalka

Kushthadi Kalka. It contains Kushtha & Langali Moola. It is a Teekshna Kalka that aids in Shodhana. It is indicated in cases of delayed Aparapatana. Apara which has not come out, gives rise to distension of abdomen and fatulence. Hence, paste of root of Laangli and Kushtha mixed with Madhya is advised to be given orally to Sutika (in whom Aprapatana is prolonged). As it is an emergency condition, Kalka is administered. If left untreated, delayed Aprapatana might lead to Makkal Shoola owing to uterine contractions.

Krushnadi Kalka

Krushnadi Kalka is indicated by Acharya Sushruta in Mudhagarbha. This is an exclusive contribution by Acharya Sushruta. Teekshna Kalka has been indicated for Shodhana. In Mudhagarbha; Sushruta has advised to save baby first. If baby doesn't come out on its own, then mother should be saved first & baby should be removed by Shastra Karma. In course of this forceful intervention; due to Vikruti of Apana Vayu; Kleda along with Rakta stay within and fail to expel out. In this Avastha, Kalka of Pippali; Shunthi & Ajmoda is given with Sneha to mother in order to liquefy the Doshas; thereby removing Kleda and relieving the pain.

Karveeradi Kalka

Karveeradi Kalka constituting Karveera & Gunja is indicated in Dushyodara for Abhyantara Shodhana. Patient of Dushyodara i.e Sannipatodara should be treated after informing its incurability. Kalka of Karveera & Gunja is mixed with Teekshna Madhya for internal intake. This formulation liqueaes the Dosha Sanghata & breaks the Srotorodha. Here all poisonous Dravyas are mixed & made into Kalka of high potency which is required in this Avastha. If this condition is left untreated, it will surely kill the patient and if treated might save the patient; though it would show some toxic effects.

Chandanadi Kalka

Acharya Sushruta has described formulations taking into account Dosha-Dushya Avastha. Teekshna Kalkas have been indicated where Shodhana is needed. Similarly, a Saumya (Pitta-Shamaka) Chandanadi Kalka has been indicated in Rakta-Pitta. Kalka of Chandana, Madhuka and Rodhra has been indicated to be consumed internally for 3 days in patient of Raktapitta and also in Nasagata Raktapitta. It is Pittashamaka; Stambhaka & Raktaprasadaka. Kalka in Vrana Chikitsa Acharya Sushruta has given the prime position to "Wound, i.e. Vrana". He has described all types of wounds and their complete management. He has mentioned sixty measures for the management of wound. Kalka application is one of them. Kalka Kalpana is indicated in healing up a Vrana situated in a muscular part from which all putridoesh has been removed or sloughed off and which exhibits a clear cavity.

TILAKALKA

An application of the paste of Tila mixed with Madhu and Nimba - leaves leads to the purification of Vrana; whereas an application of the same paste (i.e, Sesamum, Madhu and leaves of Nimba), mixed with Ghrita tends to heal up the ulcer. This paste tends to allay the deranged Vayu through its Madhura Rasa, Snigdha and Ushna Guna; subdues the deranged Pitta through its Kashaya, Madhura & Tikta Rasa and proves beneficial even in the case of the deranged Kapha through its Ushna, Kashaya and Tikta Rasa. An application of the Tila Kalka mixed with the drugs of Shodhana & Ropana gana tends to purify and heal up an ulcer. Tila Kalka is Yogavahi. It aids in Shodhana, Ropana and ShodhanaRopana. When Tila is mixed with Nimba Patra and Madhu, it aids in Vrana Shodhana (devoid of dushyas) whereas when same paste i.e. Tila; Nimba Patra & Madhu is mixed with Ghrita, it aids in Vrana Ropana(healing). Kalka Kalpana in Cosmetology Pandukarana Owing to the defective or faulty healing, Vrana attains black color. The natural and healthy colour (Pandu) of the surrounding skin should be imparted to this black patch. Acharya Sushruta has given a Kalka formulationtorestore thenaturalskincolor. This is being discussed here. The fruit of the Rohini (Haritaki) should be immersed in Aja Ksheera for seven nights and afterwards made into a one pasted with the same Ksheera. This should be applied to the skin. This measure is called Pandukarana (imparting a yellow or natural skin-colour to the blackened patch)

Romasanjanana

It refers to causing hair re-growth. Acharya Sushruta has given 2 Kalka formulations for Romasanjanan. These are being discussed here.

Hastidantyadi Kalka

Ash of Hastidanta (elephant's tusk) and Rasanjana is to be mixed with Aja Ksheera and applied on affected area. This helps in regrowth of hair even on the palms.

Kasisadi Kalka

Kasisa and tender Karanja leaves are made into a paste with Kapittha Swarasa. This is applied on the affected area. This helps in appearance of hair in that region.

DISCUSSION

Shadvidha Kashaya Kalpana comprises 'Kshíra' (Medicated Milk), 'Rasa' (Expressed Juice), 'Kalka' (Fine Herbal Paste), 'Kashaya' (Decoction), 'Shita' (Cold Infusion) and 'Chúrna' (Powdered Drugs). The potentiality of the medicines of the preceding category is greater than the succeeding ones. Kalka is more potent than Kashaya Kalpana. As Kalka is a pure herbal extract, it contains chemical constituents in its natural form. There is the least chance of alteration of the chemical properties of Kalka because the very less physical process is involved in its preparation. That may be the reason for the high pharmaceutical and therapeutic potency of Kalka as Kwatha. compared to Various properties, pharmacological actions and indications of combinations of herbal drugs are compiled in many Ayurvedic databases of raw drugs; the maximum of which can be expected in the Kalka dosage form of respective drugs.

CONCLUSION

By reviewing Sushruta Samhita, a large number of references regarding the pharmaceutical and therapeutic aspects of Kalka are observed. Kalka is used in multiple approaches like internal, and external; with combination, in therapeutic procedures like Vrana Chikitsa, etc. It is indicated in the management of different diseased conditions. This review emphasizes the importance of Kalka in Avurvedic pharmaceutics and therapeutics. This potent dosage form should be evaluated pharmaceutically, analytically, pharmacologically and clinically to establish its safety and efficacy on scientific bases and to open a new arena in the invention of many biologically active organic molecules.

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