



Research article

Utility of herb mineral drugs and their pharmaceutical applications with special reference to panchakarma

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ABSTRACT

Panchakarma forms an integral part of the holistic system of medicine, Ayurveda. Not only the body purification procedures but also the pharmaceutical preparations affect the outcome of Panchakarma therapy. Although Panchakarma and Rasashastra are not included in the Ashtanga Hridaya, their utility is found in all the eight branches. This article deals with the Rasadravyas meant for Panchakarma procedures like Vamana, Virechana, Basti, Nasya, Abhyanga, Dhuma, Lepa etc. To have a critical review of Herbomineral drugs and their Pharmaceutical Application with special reference to Panchakarma. The ancient Ayurvedic literature as well as modern references was searched to have a critical study of the herbomineral drugs, their pharmaceutical preparations, Panchakarma procedures, rationale of using Rasadravyas in Snehakalpanas, classical as well as the traditional dosage forms. Also the selection of formulations according to Dosha- Pradhanya, Vyadhi-Pradhanya (Pradhana/ Mridu Shodhana), Shamana, Brimhana and Rasayana has been discussed at length. These Rasaushadhi preparations are used internally (for Deepana, Pachana, Snehapana, Shodhana, Shamana, Brimhana) or externally (Abhyanga, Kavala, Gandusha, Karnapurana, Moordhni Taila etc.)

Keywords: Herbominerals, Kshara, Panchakarma, Rasayan, Shaman, Shodhan

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INTRODUCTION

Ayurvediya Vikritivigyan provides guidelines for identifying the stages of Vyadhi in the form of Shatkriyakala^[1] or Samprapti. These stages of pathogenesis are- Sanchaya, Prakopa, Prasara, Sthanasanshraya, Vyakti and Bheda. These stages can be identified according to their cardinal signs and symptoms.

According to the Ayurvedic texts, the disease management has been done stage by stage depending upon the condition of the disease. Thus Chikitsa can be planned as-

- Amapachana
- Shodhana
- Shamana
- Brihana
- Rasayana

The selection of formulations according to the aforesaid headings can be described as follows-

Amapachana / Agnidipana^[2]

Since Ama is the root cause of any disease, it has to be treated first. Depending upon the Sthana (Koshthagata or Shakhagata) and Vyadhi Awastha (Prabhuta, Madhyama or Alpa), the Aushadhi Kalpas are prescribed accordingly.

Aushadha Siddha Paniya^[3]

Table No. 1 Aushadha Siddha Paniya according to Doshas

Dosha Pradhanya	The Paniya is made Siddha with
Vata	Jiraka+Dhanyaka
Pitta	Guduchi, Musta, Shadanga Paniya
Kapha	Shunthi
Kapha-Vata	Panchakola Phanta

Kashaya: Kapha Vata- Amruttotara Kashaya^[4].

Pitta: Drakshadi Kashaya.

Churna: Talisadi^[5], Hingvashtaka, Ajamodadi, Trikatu, Panchakola, Chitrakadi, Lavana Bhaskar.

Vati: Agnitundi [6], Chitrakadi, Sanjivani Vati, Laghumalini Vasant, Shankha Vati, Vettumarana.

Arishta: Amritarishta, Pippalyasava, Mahasudarshana Kwatha [7].

Bhasma: Shankha [8], Abhraka, Shukti, Godanti Bhasma.

Khalviya Rasayan: Agnikumara Rasa [9], Loknatha Ras, Sutshekhar Ras.

Kupipakwa Rasayana: Rassindura [10], Rasapushpa, Rasakarpura

Parpati Kalpa: Loha Parpati [11]

Pottali Kalpa: Hemagarbha Pottali [12]

Shodhana

It includes Vamana, Virechana, Basti, Nasya and Raktamokshana [13].

Out of these Vamana and Virechana can be termed as Pradhana Shodhana.

Selection of a proper medicine should be considered for Snehapana depending upon the Dosha involvement.

- Vata Pitta- Mahakalyanaka Ghrita [14], Kalyanaka Ghrita
- Pitta Kapha- Mahatiktaka Ghrita [15], Tiktaka Ghrita
- Kapha Vata- Mahapanchagavya Ghrita [16] / Panchagavya Ghrita
- Koshtha Vata- Indukantha Ghrita [17] /Guggulutiktaka Ghrita

Selection of Virechaka Dravyas / Virechanopaga Dravyas

- Vata- Gandharvahastadi Taila [18] (Snigdha Virechana)
- Pitta- Avipattikar Churna, Trivrit Lehya [19]
- Kapha – Manibhadra Guda [20]

Selection of suitable Anupana

- Pitta Dosha Pradhanya- Kshira [21]
- Kapha Dosha Pradhanya- Gomutra [22]

Mridu Shodhana

It can be done with Nitya Virechana Kalpas like-

- Kashaya- Gandharvahastadi Kashaya [23] / Triphala Kashaya
- Churna- Avipattikar Churna / Trivrit Churna [24]
- Lehya – Trivrit Lehya [25] / Dashmula Haritaki Lehya
- Taila- Gandharvahastadi Taila [26]
- Apart from these general preparations, the disease specific Shodhana Dravyas can be selected e.g. for Kasa-
- Nagavalli Swarasa+Palandu Swarasa+Madhu – removes Kapha by Lekhana
- Kanakasava [27] – removes Kapha by Chhedana and Lekhana
- Pippali, Karpuradi Churna and Tankana Bhasma [28]- removes Kapha by Lekhana and Shoshana
- Rasasindura, Mallasindura - removes Kapha by Lekhana and Shoshana
- Thus preparations for other Shodhana procedures like Basti, Nasya and Raktamokshana should be selected.
- Snehana- This is done to move the Doshas from Shakha to the Koshtha [29]. This is attained by the breakdown of the Malasanghata and controlling the movement by pacifying the Vata Dosha. It includes both the Bahya and the Abhyantar

Snehana. Here the intake of Achha Sneh is given in maximum dose after the digestion of previous food prior to Shodhana Karma for Utkleshana of the Prakupita Doshas.

Shamana

The Shamana preparations are selected depending upon the Dosha predominance. e.g. For Shwasa and Kasa following preparations should be considered-

Kashaya-

- Kapha predominance- Dashamulakatutrayadi Kashaya [30], Dashamula Kashaya, Indukanta Kshaya
- Shamana and Brihana purpose – Nayopayam Kashaya [31] for Vata-pradhana alpa Kaphanubandha
- Taila – Mahanarayan Taila [32] (In Vata Pradhana Awastha)
- Ghrita- Indukanta Ghrita [33], Dadimadi Ghrita. Rasnadi Ghrita

Lehya-

- Dashmula Haritak [34]
- Vasavaleha
- Agastya Haritaki Leha

Rasakalpa-

- Shwaskuthar Rasa
- Laxmivilas Rasa
- Vatapradhana- Samirapannaga Rasa [35]
- Kaphapradhana- Rasasindura

Churna-

- Vata Pradhana- Sitopaladi Churna [36]+ Yashtimadhu Churna
- Pitta Pradhana- Yashtimadhu Churna
- Kapha Pradhana- Talisadi Churna

Asava-Arishta

- Vata Pradhana- Dashmularishta
- Pitta Pradhana- Vasakasava, Vasakarishtha [37], Drakshasava, Draksharishta
- Kapha Pradhana- Kanakasava, Somasava, Pushkarmulasava

Snehana

- It is for mitigation of Doshas / for palliating the diseases, consumed when the person feels hunger and without food, given in medium dosage.

Brihana

Kashaya

- Nayopayam Kashaya [38]
- Vatapradhana- Vidaryadi Kashaya

Taila

- Mahanarayan Taila [39]
- Mahamasha Taila

Ghrita

- Vidaryadi Ghrita [40]
- Rasnadi Ghrita
- Amritaprasha Ghrita

Bhasma

- Abhraka Bhasma [41]
- Swarna Bhasma

Snehana

This Sneha is for the Brihan purpose and should be given with meat soup, wine etc. and consumed along with food in minimum dose.

Rasayana

This is aimed at prevention of recurrence of the disease (Apunarbhava Chikitsa) e.g. Shilajatu Rasayana, Pippali Rasayana, Swarna Bhasma [42]

Table No. 2 Different types of Snehapana along with their Yogas

Sneha Kalpa	Rasadravaya	Indication	Type of Snehapana
Shatavari Ghrita	Shilajatu	Mutrakrichhra, Mutradosha, Sharkara	Shamanartha Sneha
Modaka Tvagadi Ghrita	Shilajatu	Asrigdara, Darun Asthisrava	Shamanartha Sneha
Varahyadi Ghrita	Gairika Rasanjana	Yoni Roga	Shamanartha Sneha
Vastiamayantaka Ghrita	Shilajit	Bastigat Roga, Prameha	Shamanartha and Shodhartha Sneha
Trikantaka Ghrita	Shilajatu/ Girijatu	Mutradosha, Prameha, Sharkara, Ashmari	Shamanartha and Shodhanartha Sneha

Probable action of the Rasadravyas**Shilajatu** [43]

- It may be associated with reducing direct sugar and lipid from gut, thereby affecting the overall metabolic syndrome along with dyslipidemia.
- Fulvic acid acts as a carrier molecule in the human system, helps in the transportation of nutrients into the deep tissues and removes deep-seated toxins from the body.
- It may potential of reducing cellular sensitivity towards circulating insulin and some potential of correcting dyslipidemia at hepatic level.

Gairika [44]

It pacifies Rakta, Pitta and is indicated in Asrigdara. Also, it is indicated in Pitta and Raktajanya vyadhis due to its Swadu, Sheeta Gunas.

Rasanjana [45]

It is said to be Vata-Pittahara and Asruknashana. Both Gairika and Rasanjana are Pittashamaka and Raktashodhaka, hence may be used in Pittaja Vyadhis and in disorders with excessive bleeding. Gairika also acts as hematinic improving the blood volume to compensate the blood loss.

Bahya Snehana-

It is done through Abhyanga, Kavala, Gandusha, Karnapoorana and Moordhni Taila.

Table No. 3 Sneha Kalpanas containing Rasadravyas

Yoga	Type of Bahya Sneha	Indications	Rasadravyas
Kshara Taila ^[46]	Karnapoorana	Karnaroga	Panchalavana, Rasanjana
Kasisadi Taila ^[47]	Abhyanga	Arsha	Kasisa, Manahshila, Saindhava, Haratala
Marichadi Taila ^[48]	Abhyanga	Kushtha	Haratala, Manahshila
Jatyadi Ghrita ^[49]	Lepa	Nadivrana, Vrana	Tuttha
Irimedadi Taila	Kavala, Gandusha	Dantaroga	Gairika
Bhringaraj Taila ^[50]	Moordhni Taila	Palitya, Indralupta, Darunaka	Lohakitta
Vajri Taila	Abhyanga	Kushtha	Gandhaka, Haratla,

			Manahshila, Sarjakshara
Phenosiradi Taila	Abhyanga	Jwara	Samudraphena, Rasanjana
Kushthantaka Taila	Abhyanga	Kushtha	Paraa, Gandhaka, Trikantha (Suryakanta, handrakanta, Ayaskanta)
Vranabhairava Taila	Abhyanga	Vrana	Hingula, Haratala, Manahshila, Tuttha dwaya, Gandhaka, Sarjarasa, Gauripashana, Navasara
Kanakaksheeri Taila	Abhyanga	Kushtha	Tuttha, Haratala, Kampillaka, Sarjakshara, Kasisa
Tikteshwakadi Taila	Abhyanga	Kushtha	Kasisa, Tuttha

Rationale of using Rasadravyas in Tailas**Haratala, Manahshila**

- They may cause apoptosis in diseased skin leading to death of diseased cells, after which they induce angiogenesis i.e. genesis of new blood vessels from the existing blood vessels thereby remodeling and repair of damaged tissue takes place.

The Manahshila in the Kasisadi Taila possesses Lekhana property which may help in the size reduction of the haemorrhoids along with medicinal effects as Bhutagni (antimicrobial), Haratala is indicated in Gudaamaya. It can be used in Vata and Kapha predominance.

Tuttha

- Due to its Lekhana property it scrapes the dead tissue in wounds and skin diseases
- Due to Krimighna and Tvakdosahara properties it has an antifungal and antimicrobial action, thus helps in wound healing.

Kasisa

- It has a Jantughna, Ropana, Shwitragnha, Raktavardhaka and Kandughna properties it possesses antimicrobial activity and thus is useful in Arsha and Kushtha.

Lohakitta

- It possesses Kashaya Madhura Rasa, Sheeta Veerya, Pittahara, Vrishya, Dipana and Raktavridhdhikar properties.
- It is used for the treatment of Palitya (graying of hair)
- The formulation acts as a natural hair dye, which also acts as mordants due to its tannin contents. Tannins create affinity between dyes and hair and thus improve colour and fastness of dye.

Gairika

- It possesses Sheeta Virya, Kashaya Rasa, Dahashamaka, Raktastambhaka and Vranaropaka properties.
- Along with the other ingredients it augments the effect of oil in treating Dantarogas like gingivitis.

Gandhaka

- It is indicated in Kandu, Kushtha, Dadru and possesses Krimighna and Rasayana properties.
- It has antifungal, antibacterial and keratolytic activity.

Vamana

With regards to Rasadravya utility, only Mayur Tuttha [51] is classically said to be Vamanakara (which induces vomiting). Shodhita Mayurtuttha can be used to induce Vamana.

Table No. 4 Virechana Yogas containing Rasadravyas

Yogas	Rasadravyas	Indications: In general for Virechana in different diseases
Dhanvantari Ghrita ^[52]	Kampillaka	Shwasa, Krimi, Vatarakta, Pleeha
Triphaladi Ghrita / Bindu Ghrita	Kampillaka	Tvak Dosh
Virechaka Ghrita	Kampillaka	Udar Roga
Danti Trivrutadi Churna	Kampillaka	Mudhavata
Maharacha Rasa	Parada, Gandhaka, Tankana	Adhmana, Malavashtambha, Udavarta
Mahavahni Rasa	Parada, Gandhaka	Udara, Mudhavata
Jalodarari Rasa	Parada, Gandhaka, Naga	Jalodara
Ichhabhedhi Rasa	Hingula, Tankana	Adhmana, Malavashtambha
Rajavirechani Gutika	Parada, Gandhaka, Gauripashana, Tankana	For Virechana
Kampillaka Yoga of Lodhra, Saptala, Shankhini	Kampillaka	For Virechana

Kampillaka ^[53]

Atirechaka (Drastic purgative), Krimighna

It possesses significant anti-inflammatory, hepatoprotective, antibacterial, antifungal, antifilarial properties due to its phenols, cardenolides contents.

Shilajatu

It is used for its Virechana effect in Prameha for its antidiabetic action.

Kajjali

It being a compound of Parada and Gandhaka possesses Yogvahi properties, thereby increasing bioavailability of other drugs.

Basti**Lekhana Basti**

The Rasadravyas used in Lekhana Basti are – drugs of Ushakadi gana (Kasisa Dwaya, Tuttha, Shilajit), Saindhava Lavana. Ushakadi Gana ias mainly indicated in Mutrakrichhra, Ashmari, Gulma, Medoroga and disorders of Kapha Dosha. These drugs possess the Lekhana and Medohara properties.

Anuvasana Basti ^[54]

Here the Snehadravyas are administered through the anal route.

Uttara Basti

The Snehadravyas are administered either through the urethral route or the vaginal route. The drugs induced are Vastiamayantaka Ghrita, Shatavaryadi Ghrita, Varahyadi Ghrita etc.

Nasya

Table No. 5 Nasya Yogas containing Rasadravyas

Yogas	Rasadravyas	Indications
Unmatta Rasa ^[55]	Parada, Gandhaka	Tridosha PRakopa, Sannipataja
Shwaskuthara Rasa	Parada, Gandhaka, Manahshila, Tankana	Vataja, Pittaja Shiro Roga
Manahshiladi Dhuma Nasya	Manahshila, Haratala	Shwasa, Kasa after Vamana

Manahshila

Kapha Vatahara, Ushna, Shoshana; antihistaminic property useful in Shwasa, Kasa

Bahyashrita Shodhana**Lepa**

These Lepas are meant for therapeutic (Kushtha Vyadhi) or cosmetic (Lomashatana) purpose.

In Apamarga Tanduliya Adhyaya ^[56], different drug combinations have been prescribed in Kushtha.

The Rasadravyas used are Haratala, Manahshila, uttha, Rasanjana, Kampillaka, Kasisa. E.g. Sidhma Lepa containing Manahshila and Kasisa; Vaipadikahara Ghrita containing Kampillaka.

Lavanas in Panchakarma

Saindhava, Samudra, Bida, Sauvarchala and Audbhida are the 5 different types of Lavana described in Rasashastra ^[57]. Out of these Saindhava is mainly used as a single ingredient or even in compound formulations.

Mode of action-

Due to Sukshma Guna, possesses Sukshmastrogamitva.

Due to Tikshna Guna, does the Malasanghata.

By its Snigdha Guna, liquefies the Doshas.

Ksharas in Panchakarma

Sarjikhshara, yavakshara and Tankana are predominantly used Ksharas ^[58].

Due to their Tikshna, Ushna, Laghu, Rukshna Guna; Dipana Pachana properties they are widely used in Kapha and Vata predominance.

Utility of Rasadravyas in Instrumentation of vessels used in Panchakarma

The instruments like Kumbhi, Kumbha, Sharava, Darvi, Basti Netra, Basti Putaka, Dhara Patra, Shalaka, Vamanapeetha, Gokarna. are used in Panchakarma procedures.

The Rasadra vyas used in the manufacture of these instruments are as follows:

Basti Netra- Swarna, Tamra, Raupya, Rajata, Trapu, kamsya ^[59]

Uttara Basti Netra- Hema, Raupya

Dhuma Netra- Swarna, Tamra, Raupya, Rajata, Trapu, Kamsya

Anjana Shalaka ^[60] - Tamra (Lekhana Prabhava), Kalaloha (Ropana), Suvarna and Raupya (Prasadana)

Dharapatra- Swarnadi Uttama Loha

Takra Dhara Patra- Sphatika, Rajata, Tamra, Varatika

DISCUSSION

Rasadravyas have wide utility in Panchakarma therapies. These Rasadravyas serve two purposes- treating disease through single drugs or compound formulations; preparing the instruments required for Panchakarma treatments. Single drugs used in Panchakarma are Tuttha, Tamra for inducing Vamana and Kampillaka, Kankushtha for Virechana.

Certain Bhasmas like Abhakra is used through Snehana in respiratory disorders; Kasisa Bhasma through Snehapana and Basti in

blood and skin disorders. Compound formulations (Rasadavyas and herbs) are administered through Snehana, Vamana, Virechana, Basti, Lepa. Most of these Kalpas compose of Kajjali, for its Vyadhiharana properties, increasing the bioavailability of other drugs. These compound formulations are used for their therapeutic properties, e.g. Shilajit (Kapha predominance, Medodushti such as Sthaulya, Prameha, Mutraroga). The Lavana and Kshara form an integral part of the Panchakarma treatments. The instruments required for the Panchakarma procedures are selected based on their therapeutic value or their inert character with the medicine used.

CONCLUSION

Out of the five Panchakarma therapies, except Lavana and Ksharas, the remaining Rasadravyas are less used in Vamana, Basti and Nasya while they are judiciously used in other supportive measures like Dipana, Pachana and Lepa. The Rasaushadhis possess Shamana properties in general but are widely useful in Panchakarma therapies for Shodhana purpose also.

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