

Application of *Panchakarma* Modalities in the Treatment of Shiro Roga: A Review

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Abstract

Panchakarma is unique and super specialized therapy in the Ayurveda. It is very particular and result oriented natural therapy of body purification. *Panchakarma* includes five natural methods of Purification or elimination viz, *Vaman*, *Virechan*, *Basti*, *Nasya* and *Raktamokshana*. *Panchakarma* therapy has promotive, preventive and curative approach towards curing various disorders in *Shalaky Tantra*. *Shalaky Tantra* is one of the important aspects of the Ayurveda which deals with the treatment of disease associated with body parts above the neck i.e., *Netra* (eye), *Karna* (ear), *Nasika* (nose), *Kantha* (throat), *Aushtha* (lips), *Danta* (teeth), *Dantamoola* (root of teeth), *Jihwa* (tongue), *Taalu* (palate), *Kantha* (throat), *Sarvasar* (mouth) and *Shira* or *Kapala* (head). Four out of five sense organs are included in *Shalaky Tantra*, so it is very important to protect them from diseases and also maintain their proper functioning. Administration of drugs by the Nasal route is termed as *Nasya*. *Panchakarma* is the most essential part of *Ayurveda* treatments. For administration of medicine, different routes are used in Ayurveda, but to reach the “*Shira*” (Head) it is difficult with other routes, there by the “*Nasya*” *Karma* was developed. *Nasya* Procedure is to eliminate vitiated *Kapha Dosha* associated *Pitta* disorders or diseases originating or settled in the place of *Kapha*.

Keywords: *Panchakarma*, *Shalaky*, *Vamana*, *Virechana*, *Basti*, *Nasya*, *Raktamokshana*.**Copyright © 2023 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Panchakarma therapy is very imperative part of *Samshodhan Chikitsa* and this therapy has attracted the people worldwide as it is an exclusive type of treatment for different chronic and acute disease, auto-immune, degenerative disorder [1]. *Acharya* Charka first time introduce the term, “*Panchakarma*”. The first definition of the *Panchakarma* is given by *Acharya* Sharngdhara [2]. The first and foremost description of *Panchakarma* in a comprehensive, scientific and detailed manner is available in *Charaka Samhita*. These five modalities depend upon the condition of vitiated *Dosha* and the patient. *Panchakarma* is a combination of five procedures of purification- *Vamana* (Emesis), *Virechana* (Purgation), *Niroohavasti* (Decoction enema), *Nasya* (instillation of medicine through nostrils), and *Anuvasanavasti* (Oil infusion through rectum). These procedures aim at plucking away the deep-rooted imbalances in the body. Any kind of *Panchakarma* therapy procedure includes *Poorvakarma*

(preparatory procedures), *Pradhanakarma* (main therapeutic procedures) and *Panchakarma* (post-therapy procedures). The success of the *Panchakarma* therapy depends upon the pre-paratory and post-therapy procedures. (a) **Vamana:** In various *Kapha* vitiated head disorders *Vaman Karma* is indicated. (b) **Virechana:** *Virechana Karma* is the choice of treatment in head vitiated with *Pitta Dosha*. (c) **Basti:** Enema with medicated oil or decoction, its use is very rare in *Shiro Roga*, it is use when *Vata Dosha* is vitiated. (d) **Nasya:** Nose is the gateway to the brain, *Nasya Karma* is therapeutic measure where the medicated oil, ghee, *Kwath*, *Churna*, *Swarasa*, etc. are administered through nose to eliminate the vitiated *Dosha* situated in *Sira*. (e) **Raktamokshana**– *Rakta* and *Pitta* vitiated head *Raktamokshana* is indicated, it is particularly indicated in rough scalp, scalp hardness, dark pigmentation of scalp, hair loss, eczema of face and scalp and also *Rakta* (Blood) vitiated disorders [3]. These *Shodhana* therapies act on the root sites of vitiated *Dosha*, remove them from the body, under *Shodhana* regimen, *Basti*,

Virechana and *Vamana* are respectively the ultimate therapies for diseases due to vitiation of *Vata*, *Pitta* and *Kapha*. *Nasya* is mostly used for the treatment of *Urdhvajatrugata* diseases and *Raktamokshana* is a unique Para-surgical measure indicated in various diseases caused by *Rakta* and *Pitta* [4].

METHODOLOGY OF REVIEW

All classical text book of Ayurveda was thoroughly review to find the information of *Panchakarma* modalities used in intervention of disease of Shalākaya Tantra. During review process types of *Panchakarma* search word by word is adopted.

In present era, irregular diet habits [5-8], excessive use of tobacco, alcohol [9], sleep disturbances [10], stress, strain [11], use of pain-killers [12-14], antibiotics [15] and steroids [16] leads to different types of headache. Their mode of treatment includes analgesics, which gives a temporary relief but its regular usage can sometimes induce headache [17] *Acharya* Vagbhata mentioned the *Nidana* of *Shiro Roga* as exposure to *Dhuma*(smoke), *Atapa*(sunlight), *Tushar* (snow), *Ambu-kidda* (over indulgence in water), *Ati-swapana* (Sleeping in day or excessive sleep) *Prajarana* (Awaken in night), *Utswedaadika* (severe sweating), *Purovata* (exposure to eastern breeze), *Vaspa-nigrahan* (suppression of tears), *Rodana* (excessive weeping), *Atya-ambu-madya-paan* (excessive intake of water and alcoholic drinks), *Krimi* (worm infestation), *Vegavidarana* (suppression of natural urges), *Upadhan* (Use of pillow), *Sharir Amarjana*(lack of cleanliness), *Abhayagdresh* (Avoid oleation), *Prataatekshana* (looking down continuously for long period), *Asatmayagandha* (inhalation of bad smell), *Dusta-ama*(undigested food), *Bhasaya* (too much of speaking); by these causes the *Doshas* get localized in the head and produce diseases of the head [18]. According to *Susrutha*, *Shiro Rogas* are 11 in number, which includes *Vataja*, *Pittaja*, *Kaphaja*, *Sannipataja*, *Raktaja* and *Krimija Shiroroga*, the remaining four being known as *Suryavarta*, *Anantavata*, *Ardhavabhedaka* and *Shankhaka* [19, 20].

POORVA-KARMA (PRE-PARATORY PROCEDURES)

Before initiating *Panchakarma* following *Poorvakarma* should be done: *Deepana* (Appetizer),

Pachana (Digestion), *Snehana* (anoint) and *Swedana* (Sweating). They aim at preparing the body for the main procedure i.e. *Panchakarma*. *Deepan-Pachana* [21]– *Deepan* drugs,ignite *Agni*and enhances *Vata Dosh*a because all *Deepan Dravyas* are having *Katu Rasa*, *Katu Vipaka*&*Usna Virya*.e.g., *Pippali* (*Piper longum*), *Chitraka* (*Plumbago zeylanica*). *Pachana* drugs [22], correct digestion as it have *Katu-Tikta Rasa*, *Ushana Virya*, *Katu Vipaka* are stimulate peristalsis of intestine, increase secretion of digestive enzyme [23] e.g., *Musta* (*Cyperus rotundus*), *Ajamoda* (*Carum roxburghianum*). ***Snehana*** - It is the administration of oily substances (medicated oil or ghee) either internally or externally, or both. (a) Externally: as *Abhyanga* (oil massage) *Shiroabhyang* (head massage), *Shirodhara* (steadily dripping medicated oil/liquid on forehead), *Shiropichu* (keeping a gauze dipped in specific oil, over the affected area), instillation of medicated oil drops in ear (*Karna pooran*), in nose (*Nasya*). *Abayanga* is included in *Poorva Karma* (b) Internally: the medicated ghee or oil given orally for a specific duration and is known as *Snehpana* (oral intake of oil of Ghee). *Samyak Snehpana Lakshan* (feature of proper completion of oelation therapy) is observed during this period. ***Swedana*** - It is a method of inducing sweating in the body by various means of heat application. For example, application of warm poultice over the skin or steam bath, it is in the form of *Peti-sweda*, *Patra pinda sweda*, *Shali shastik pinda sweda*, *Upnah sweda*, *Nadi swedana*, *Sankar sweda*.

PASHCHAT-KARMA (PROCEDURE AFTER PANCHAKARMA)

It include *Doom-pana*, *Samsarjana Krama* A strict diet preferably using *Peya*, *Vilepi*, *Yush*, *Mansa Rasa* are used to enhance the digestive power in stepwise manner and restricted life style procedure has to be followed throughout *Panchakarma* treatment.

PANCHAKARMA IN SHIRO ROGA

All the diseases of head are mentioned in *Samhitas* are mentioned below along with the indicated *Panchakarma* measures.

ROLE OF PANCHAKARMACHIKITSA IN SHIRO ROGA:

Table 1: Different *Panchakarma* procedures used in the treatment of *Shiroroga*

Procedure	Disease Indicated	Drug Used/ Specific procedure	Reference
<i>Vamana</i> (Therapeutic Emesis)	<i>Kaphaja Shiroroga</i>		Su.ut.26/18,19 [24]
	<i>Kaphaja Shiroroga</i>	<i>Kattu Dravya</i>	Ah.ut.24/14 [25]
	<i>Khalitya</i>		Ah.ut24/33 [25]
	<i>Palitya</i>		Ah.ut24/33 [25]
<i>Virechana</i> (Purgation Therapy)	<i>Pittaja Shiroroga</i>		
	<i>Pittaja Shiroroga</i>		
	<i>Ardawavedhaka</i>		
<i>Basti</i> (Enema Therapy)	<i>Pittaja Shiroroga</i>	Drugs of <i>Uttapaladi Gana</i> *	Su.ut 26/16 [24]

Shirovirechana (Errhine Therapy)	<i>Vataja, Pittaja, Kaphaja Shiroroga</i>		Su.ut.26/25 [24]
	<i>Kshayaja Shiroroga(Vayu Subdoing)</i>	<i>Vatta Shamaka&Madhura Gana*</i>	Su.ut.26/25 [24]
	<i>Krimija shiroroga</i>	<i>Shonita Nasya</i>	Su.ut.26/26 [24]
	<i>Suryavarta</i>		Su.ut.26/30 [24]
	<i>Anantavata</i>		Su.ut.26/36 [24]
	<i>Ardhavbhedaka</i>	<i>Shirisha (Albizia lebeck), Madhuka (Glycyrrhiza glabra), Vanshamulaka (Bambusa arundinacea)</i>	Su.ut.26/31 [24]
	<i>Samkhaka</i>		Su.ut.26/38 [24]
	<i>Vataja Pittaja, Kaphaja,Raktaja Shiroroga</i>	Clarified Butter potentiated with decoction of <i>Varunadi Gana</i> for <i>Vattaja Shiroroga</i> only	Ah.ut.24/5-8 [25]
	<i>Krimija Shiroroga (Shonita Nasya)</i>		Ah.ut.24/15 [25]
	<i>Ardhavbhedaka</i>	<i>Shirisha,(Albizia lebeck), ApamargaMoola (Achyranthes aspera)</i>	Ah.ut.24/10 [25]
	<i>Ardhavbhedaka</i>	-	Ch.Si.9/75 [26]
	<i>Suryavarta</i>	-	Ch.Si.9/82 [26]
	<i>Samkhaka</i>	-	Ch.Si.9/73 [26]
	<i>Krimija Shiroroga</i>	-	Ch.Chi.26/18 [27]
	<i>Kshayajaand Krimija Shiroroga</i>		
	<i>Suryavarta</i>	<i>Shirisha(Albizia lebeck),Brigharaj(Eclipta alba)</i>	Yg.chi.2,3(p-337) [28]
	<i>Adhavbhadaka</i>	<i>Girikarnika Phala</i>	Yg. Chi.7(p-337) [28]
	<i>Vataja Shiroroga</i>	<i>Panchmuli Kshira</i>	B.R. chi 65(p-1013) [29]
	<i>Pittaja, Kaphaja Shiroroga</i>		B.R. chi 65(p-1014) [29]
	<i>Kshayaja Shiroroga</i>	<i>Ksharpi (Purified ghee) withVatanashak MadhuradravyaShiroroga</i>	B.R. chi 65(p-1015) [29]
	<i>Krimija Shiroroga</i>	<i>Vyosh,(triktu) Karanja(Pongamia pinnata) Shigru bija(Moringa oleifera)</i>	B.R. chi 65(p-1015) [29]
	<i>Suryaavarta</i>	<i>Kritamala (Cassia fistula) Swarasa (Fresh Juice), with Apamarg (Achyranthes aspera) Kalka, Shishamoola (Albizia lebeck), Dashmula Kasaya, Bhrigraja (Eclipta alba) Swarasa</i>	B.R. chi 65(p-1015) [29]
	<i>Ardhavbhedaka</i>	<i>Dashmula Kasaya or Vidanga(Embelia ribes) with krishna tila</i>	B.R. chi 65(p-1016) [29]
	<i>Samkhaka</i>	<i>Kshira-Ksarpi (Milk & Clarified Butter)</i>	B.R. chi 65(p-1017) [29]
<i>Ardhavbhedaka</i>	-	Bh. Pr. (M K 62) [29]	
<i>Pitta Shiroroga</i>	<i>SwashaKuthar Rasa or Guda (Jaggery) &Nagar (Zingiber officinale)</i>	Bh. Pr. (M K 62) [30]	
<i>Kshayaja Shiroroga</i>	<i>Vatanashaka Madhura Dravya</i>	Bh. Pr. (M K 62) [30]	
<i>Krimija Shiroroga</i>	<i>Vyosha(Zingiber officinalis, Piper nigrum, Piper longum) &Shigru Beej (seed of Moringa oleifera)</i>	Bh. Pr. (M K 62) [30]	
<i>Suryavarta</i>	<i>Bhringraja (Eclipta alba) Swaras&KhagaKshira (goat milk)</i>	Bh. Pr. (M K 62) [30]	
<i>Aravbhadaka</i>	<i>Vidanga (Embelia ribes), Tila (Sesbania sesban) &Krishana,(Piper longum) OR Pathaya (Terminalia chebula), Aksha(Terminalia bellirica) &Dhatri (Emblica officinalis)</i>	Bh. Pr. (M K 62) [30]	
Raktamokshan (Blood-letting)	<i>Anantavata</i>	<i>Siravedha</i>	Su.ut.26/36 [24]
	<i>Suryaavarta</i>	<i>Siravedha</i>	Ah.ut.24/11 [25]
	<i>Arunshika</i>	<i>Jaloka</i>	Ah.ut.24/21 [25]
	<i>Darunaka</i>	<i>(Kapalgata Shira Raktamokshana) Frontal Venipuncture</i>	Ah.ut.24/25 [25]
	<i>Indralupta</i>	<i>Siravedha</i>	Ah.ut.24/28 [25]
	<i>Anantavata</i>		Ch.si.9/86 [26]
	<i>Suryavarta, Antavata, Raktaja Shiroroga,</i>		Yg.chi.1(p-338) [28]
	<i>Suryavarta, Antavata, Raktaja Shiroroga,</i>		BR.chi.65 [29]
	<i>Raktaja Shiroroga, Antavata,</i>	<i>Siravedha</i>	Bh. Pr. (M K 62) [30]

Uttapaladi Gana* [*Kamal (Nelumbo nucifera)*, *Rakta-kamal (Nelumbo nucifera)*, *Sweta-kamal (Nymphaea lotus)*, *Nil-kamal (Nymphaea stellate)*, *Pundrika (Nymphaea alba)*]

Madhura Gana* [*Kakoli (Roscoea purpurea Wall)*, *Ksheerkakoli (Lilium polyphyllum D. Don)*, *Jiwak (Malaxis muscifera Lindl. Kuntze)*, *Rishbhak (Malaxis acuminata D. Don)*, *Mugdarni (Phaseolus trilobus Ait.)*, *Mashparni (Teramnus labialis)*, *Meda (Polygonatum verticillatum Linn.)* *Mahameda (Polygonatum cirrhifolium Royle.)*, *Guduchi (Tinospora cordifolia Wall.)*, *Shirngi (Pistacia integerrima)*, *vanshlochna (Bambusa arundinacea)*, *Padam (Prunus cerasoides)*, *Prapondrika (Nelumbo nucifera Gaertn)*, *Riddhi (Habenaria edgeworthii Hook.)*, *Vridhhi (Habenaria intermedia)*, *Draksha (Vitis vinifera Linn)*, *Jivanti (Leptadenia reticulata Retz)*, *Mulethi (Glycyrrhiza glabra Linn)*].

DISCUSSION

Acharya Charaka doesn't mention main five Karma in a single place, Vamana, Virechana, Shirovirechana, Niruhabasti, and Anuvasanabasti but he first introduces the term "Panchkrma" in the Ayurveda [31]. Same Karmas included in the Panchakarma by Acharya Arundata on the commentary of Astang Hridaya of Acharya Vaghabhat [32]. Sam-Shodhana therapy purifies or cleanses all the body tissues and micro-circulatory channels, and brings about the harmony of Tridosha i.e. Vata, Pitta, and Kapha in such a way that vitiated Doshas are regulated in the body and long lasting beneficial effects of long duration are produced in the body [33]. Panchakarma is mentioned for prophylactic measures in the context of epidemics [34] and its preparatory procedures before the administration of rejuvenation therapy (Rasayana) [35-37]. All Panchakarma procedure is encompassed in Shodhana Chikitsa (Purification therapy). Shodhana Chikitsa is better than Samana Chikitsa (palliative therapy), as treated disease doesn't relapses [38]. This Therapy not only cleanses the Kosta (Gastrointestinal tract) but also nourish brain, skin complexion, increases the physical stamina and sexual power [39].

Panchakarma is also has a role in Kaya Chikitsa (Internal medicine) but it has applicability in Shalya Tantra (Surgery), Bal Rog (Pediatrics), Stree Rog (Gynaecology) and Shalaykaya Tantra (Otorhinolaryngology) in the Ayurveda. In Shalaky Tantra, so many Panchakarma procedures are mentioned for many diseases. Maximum number of diseases is treated by Nasya which is summarized in the Table 1. Shirovirachana, Murdhavirachan, Nastakaram, Nasyaprachardhanam and Nawan are the synonym of Nasya. In Charka Samahita, it is enlightened that Nasa (Nose) being the entry-door to Shira (head) [40], drugs administered through nostrils, reaches Shringataka by Nasasrota (nasal route) and

spreads in the Murdha (Brain) taking the route of Netra (eye), Shrotra (ear), Kantha (throat), Siramukhas (opening of the vessels), etc. and scrapes the morbid Doshas in the Jatru-urdhwa and extracts them from the Uttamanga, which is core dealing area for Shalaky Tantra [41]. Such thought was supported and advocated by Acharya Vagbhata to use of the Nasya in the treatment of ENT diseases [42]. This may be due to Nasal route provides high vascularity, bypassing the first-pass metabolism and ready accessibility due to the absence of pancreatic, gastric enzymatic activities and interference by gastrointestinal contents [43]. In addition, the nasal mucosa is permeable to more compounds [42, 44]. It has a thin mucous layer, porous endothelial membrane [45, 46], relatively large surface area because of a large number of microvilli, a porous endothelial membrane and a highly vascularised epithelium. The olfactory pathway also has a direct connection to the cerebrum [47]. On the basis of mode of use of drug it is of 5 types, as per Sushruta and Charka, but of 4 types according to Acharya Vagbhata. All types of Nasya are used in the treatment of disease come under the scope of Shalaky Tantra.

Raktamokshana is the second most used modalities used in the treatment of Shalaky Tantra. Siravedha (Vein Puncture) and Jaloka Avachrana (Medical leech therapy) are two sub-procedures of Raktamokshana. Other four are, Shringa (wet cupping), Alabu (wet fire cupping), Pracchana (Scraping or scarification) and Ghatyantra (Cupping). Vaman, Virechana and Basti are the least used modalities and used in the treatment of Shiroroga of Kapha, Pitta and Vatta origin. Aravbhada is treated by Virechana and Nasya. Suryavarta and Antavata is treated by Raktamoksha and Nasya.

CONCLUSION

Panchakarma plays a very beneficial role in the treatment of many diseases. It cures the diseases from its root. It helps not only in detoxification but also in maintaining exceptional health. Even a healthy individual can undergo Panchakarma treatment. Nasya plays the most important role in Shalaky out of all five Panchakarmas. It is beneficial in diseases of all parts of Shalaky Tantra. Various medicated preparations like Taila (oil), Ghee (Clarified Butter), Churna (fine powder), are now available in the market from different brands. Hence Panchakarma should be brought to a heavy limelight so that everyone would be able to get its benefits. In this modernized era, lifestyle and faulty dietary habits are the main causes for Head ache which is the burning problem. To prevent this disease, regimens mentioned in Ayurveda are to be followed. Panchakarma is an advanced procedure in Ayurveda used to eliminate the morbid Doshas from the body. In Shiro Rogas, Nasya Karma is the prime treatment modality. This may be because the drug administered through nostrils, directly reaches the head and eliminates only the morbid Doshas. Other Panchakarma

procedures are also practiced in head disorders to eradicate the root cause of the disease. This present article highlights the *Panchakarma* procedures indicated in *Shiro Roga*. This will be useful for easy reference; further research is advisable.

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