

PHARMACEUTICAL PROCESSING IN PANCHAKARMA VIS –A-VIS POLIO MYELITIS

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Received: 22 March, 1996

Accepted: 4 May, 1996

ABSTRACT: *The physical and chemical characteristics differ depending upon the pharmaceutical processing of medicated oils. These changes eventually influence the actions of these medicaments this particular aspect is highlighted in this article.*

INTRODUCTION

Ayurveda is a rich storehouse of time-tested and effective recipes for the treatment of several obstinate and otherwise incurable diseases. More important than these recipes are the specialized therapies which while curing such diseases strengthen the immunity system in body and thus help in the prevention of diseases and preservation as well as promotion of positive health. These specialized therapies in ayurvedic parlance are called *panchakarma*. It is no wonder therefore that scientists and physicians in India and abroad is evincing deep interest in this classical form of ayurvedic treatment.

Ayurvedic treatment is broadly classified into two categories *shodhana* (Evacuatory or Eliminary) and *shamana* (Pacifactory) *shodhana* occupies the first place; so if one opens any chapter on the treatment of diseases in ayurvedic classics the first point which will strike the attention is the description of *panchakarma* measures for that ailment, recipes coming next there after. *Pancha karma* therapy primarily aims at cleansing the body of accumulated impurities and nourishing the tissues. This therapy if administered appropriately makes the body more receptive to other remedies and produce the curing effect even when

administered in small dose and for less number of days.

The term *panchakarma* literally means five specialized Therapies. Chakrapanidatta says that *karma* denotes 3extensive management and pronounced potency for elimination of impurities. The five therapies which are included under this collective term are as following

1. *Vamana* (Emesis)
2. *Virechana* (Purgation)
3. *Niruha Vasti* (non unctuous enema)
4. *Anuvasana vasti* (unctuous enema)
5. *Nasya or shiro virechana* (head evacuation)

Some authors take *Niruha* and *Anuvasana* under *vasti* and complete the number five by adding *Rakta mokshana* (Blood Letting). In case of polio myelitis disease only *vastikarma* may be applicable.

The importance of *Pancha karma* in Ayurveda is testified by the fact that it is essentially applicable to all cases covering a wide range of preventive, curative and

promotive conditions. It is not only an important component of treatment but it also forms the fundamental basis of ayurvedic therapy. It is postulated that the vitiated *doshas* and *malas* of body need to be eliminated radically before a palliative therapy is given. The palliative therapy in form of drug and diets may not be effective unless the body channels are cleansed and morbid doshas and malas are eliminated. This is an unique approach and is very fundamental Ayurveda.

Sanshodhana Karma has been broadly classified into three parts

1. *Poorva Karma*
2. *Pradhana Karma*
3. *Pashchat Karma*

There is some difference opinion among different authors Ayurvedic regarding the elaborative description. Vagbhatta opines that *sanshodhana* measure should out be carried out with prior administration of *Poorva Karma* because mere *sanshodhana* can not eradicate doshas.

As we know poliomyelitis is a vata disorder, caused by the affliction of the nervous system. All the physical and psychic functions of the individual are regulated by three basic factors Viz. *Vata pitta* and *Kapha*, out of which *Vata* regulates all sensory and motor functions of nervous system. The activities of *pitta* and *kapha* are also regulated by *vata* and therefore, vata plays the most important role in the creation sustenance, decay and destruction of body. So for the individual to be healthy and happy vata should be kept in state of

equilibrium for treatment of polio myelitis *snehana* and *svedana karma* should be done as *poorva karma* through *Abhyanga* and *panda sveda* then *pradhana karma* should be done in form of vasti followed by *pashchat karma* i.e. *Sansarjana karma*, *Abhyanga karma* or massage therapy helps in promotion and regulation of proper functioning of *vata* or nervous system. Since each king of drug therapy comprises of some specific pharmaceutical processings for suitable administration of the medicaments into the body. This pharmaceutical processing imparts major role in exhibiting the effect of the medicaments on body tissues. So to get desired effects o body the drugs should must be processed pharmaceutically in proper way. If any fault remains during processing it may alter the ultimate effect of medicaments. Thus it is important to note that each and every step of eh processing should must be properly standardized to obtain the optimum action of the drug.

In poliomyelitis at first *snehana Karma* is done by *Abhyanga* which helps is promotion and regulation of proper function of *Vata* or nervous system. Oil alleviates *vata* but does not aggravate *Kapha*. Among the different types of oil collected from oil seeds, sesame oil is the best which can be used for massage alone of after being cooked by adding different drugs in it. This technique the oil is boiled with prescribed decoction and paste of drugs according to the proscribed procedure, this process ensures absorption of the active therapeutic properties of the ingredients used. Mostly oil soluble fractions of these ingredients are collected through this process.

**PHARMACEUTICAL PROCESSING FOR PREPARATION OF
MEDICATED OIL (SNEHA KALPANA):**

A. Materials

S.No	Ingredient	quantity
1	Oil	1 part
2	Paste of drugs	¼ part
3	Liquid	4 part

B. Method:

1 For past of drugs – Kalka Kalpana is applied. In this technique the drugs are ground with or without water to make a paste.

2. For Liquid-

- i) If it is juice then *Swarasa kalpana* is applied for its preparation
- ii) If it is a decoction than *kwatha Kalpana* is applied for its preparation

I) *Swarasa Kalpana*:

(a) Green drug→ Washed & Squeezed through cloth→ Swarasa (Juice)
(crushed)

(b) Dry drug+ water..... → Swarasa
Boiled Up to ¼ quantity

(c) Dry drug+ water→ mashed & squeezed through cloth ...→ Swarasa
left as such for 24 hrs

(d) Paste of drugs -----→ kept in specific leaves and wrapped with clay ----→heated upto Cool red ness -----→ paste taken out squeezed through cloth -----→ swarasa

(iii) *Kwatha Kalpana*

Boiled

Drug + water -----→ remained ¼ & filtered through cloth ---→ *Kwatha* (decoction)

3. For medicated oil: *Sneha Kalpana*

Paste of drugs + oil + liquid cooked till evaporation of whole moisture content ----→ filtered through cloth --→ medicated oil

Unless otherwise mentioned in the text the paste is one fourth, and liquid is four times of the quantity of oil. In addition the physician should keep in view several points like:

1. If in the recipe, no liquid is mentioned then four parts of water is used.
2. Where the number of liquid is four or less then each has to be taken four times of the oil.
3. If liquids are more than four in number each should be equal to oil.
4. If no paste prescribed, drugs prescribed for decoction may be used as paste.
5. Paste quantity may also vary depending upon the nature of the drug like if paste of flower is taken for processing then its quantity will be 1/8 of the oil.

For processing at first oil is heated to get rid off its Ama Dosha (moisture) then the paste and liquid are added in it and boiled with continuous stirring so that the paste is not allowed to adhere to the bottom of the vessel. Sometimes the liquids are to be added one after the other and process of boiling continued till the moisture of the liquids added earlier is completely evaporated. When the moisture from all liquids is evaporated then the moisture part of paste begins to evaporate. At this stage, the preparation has to be carefully examined

more often to ensure that the paste does not get charred. A small portion of the paste is taken out with help of ladle and examined from time to time to ascertain the condition and the stage of cooking (*Paka*).

Oil preparation should not be completed within one day. If sugar salt, alkali are mentioned as ingredients should be added to the finished product and than filtered for appropriate storage and preservation.

Medicated oil is used at first for *Abhyanga* (Massage) in poliomyelitis on desired part of body then *panda svada* is applied. *Pinda svada* is a process by which the whole body or a part of it is made to perspire by the application of certain medicinal puddings followed by massage.

PHARMACEUTICAL PROCESSING FOR PINDA SVEDA

1. *Preparation of Decoction & pudding:*

The root of *Bala* (*Sida cordifolia*) is popularly used for this therapy. About 500 gms of root of plant is used for this purpose. After being washed properly, cut into chips and crushed well, put into 8 ltrs of water approx, then boiled till water evaporated and ¼ of it remains. Decoction is then strained through a strainer or a linen cloth. The decoction now remains 2 ltrs. In quantity. Approximately one liter is added with on ltr of cow's milk and other one liter is kept for use at a later stage. Now in the above mentioned decoction and milk, about 500gm

of rice is added and cooked till it becomes semisolid like a pudding.

2. Preparation of Boluses

Pudding thus prepared is divided into 8 equal parts and kept on 8 pieces of cloth. The edges of these cloth pieces should be gathered together and tied to form 8 boluses (bundles).

Now heat is applied through these bundles on the desired body part for *svedana karma* (perspiration). Earlier massage with the oil helps in maintaining uniformity of the heat to be applied during the therapy through the pudding bundles. The oil also protects the skin from sudden evaporation and perspiration. The previous administration of snehana creates *klinnata* of *Malas* which get liquefied by use of *svedana* and are brought to *koshtha* and finally eliminated by use of measures contemplated in *pradhana karma* i.e *Vasti*. *Vasti* has been broadly classified into two types according to the nature of its contents:

1. Niruha or Asthapana Vasti-

This type of *vasti* consists of more of Decoction, In poliomyelitis decoction prepared with *vatahar dravyas* is taken for

this purpose e.g *Nirgundikwatha*, *Dashamoola kwatha* etc.

2. Snehika or Anuvasana Vasti-

This type of *vasti* consists of excess of *sneha dravyas*. So for this purpose medicated oil prepared with *vatahar Dravyas* may be used e.g *Ksheera bala taila*.

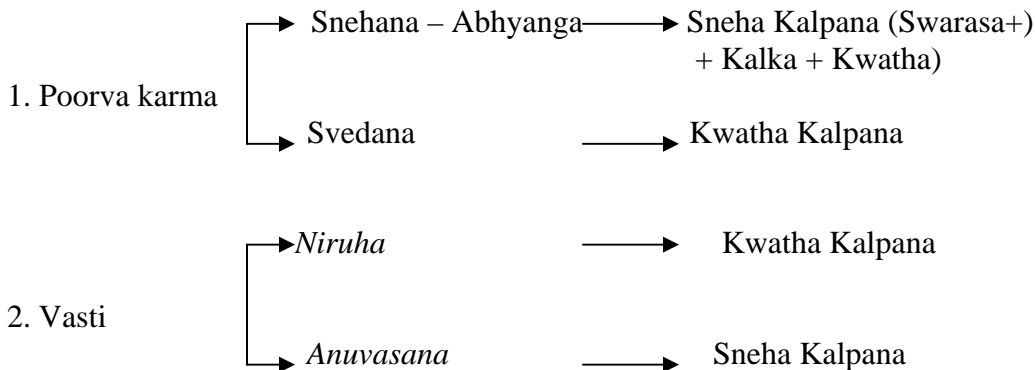
Now this *pradhana Karma (Vasti)* is followed by *pashchat karma* in the form of *sansarjan Karma* as at this stage means after *pradhana karma* the digestion becomes poor. Consequently, taking of normal diet is injurious. Hence to promote digestion it is necessary to give *peya vilepi yavagu Akrita or krita Yusha* and *Mans Rasa* etc followed by normal diet.

Pharmaceutical processing involved in sansarjan karma:

Mainly *Kwatha Kalpana* is applied for preparation of all types of diet for *sansarjan Karma*.

CONCLUSION:

1. In treatment of poliomyelitis following therapies with various pharmaceutical processings are involved.



3. Pashchat karma

- *Sansarjan*
- *Svedana*

→ Kwatha Kalpana

→ Various other pharmaceutical processings used for preparation of different pound drug formulations (Kajjali, Parpati, Kupipaka group etc)

2. It is interesting to note that in the ancient texts like in the ancient texts like Brihatrayi and Laghutrayi there are no suggestions about the preliminary treatment of oil i.e *Murchhana* which however seems to have introduced sometimes later as its reference are found in Bhaishajya Ratnavali. In view of this in modern practice there is a difference of opinion amongst the ayurvedic exponents whether *murchhana* is a necessity or not the previous workers tiwari et al suggest that *murchhana* is not necessary for preparation of medicated oil.

examined and found that temperature variation causes differences in –

- i) Refractive index
- ii) Specific gravity.
- iii) Acid value
- iv) Saponification value
- v) Ester value
- vi) Iodine value etc, are suggestive of the fact that rancidity, etherification as well as saturation of the oil is moderately effected even by a variation in the extent of heating.

3. It is claimed that the therapeutic activity of oil preparation depends upon the drugs which are thus used in form of paste during processing of oil

5. In order to have some idea about chemical constituents present in different samples of oil, thin layer chromatographic study and spectral study should be done.

4. The physical and chemical characteristics of oil and different heating stages of processing were

Thus from the above discussion it is obvious that pharmaceutical processing effects the action of medicaments ultimately influencing drastically the final effect of the drug on body tissues.

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