



Review Article

A critical analysis on need of standardization of doses in Panchakarma

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ABSTRACT:

In today's modern era standardization has gained great importance. Efforts are being made to standardize everything in each field. Ayurveda is also not an exception for that. In Panchakarma various researches are going on for standardization of equipments, procedure and *aushadhi matra* used in different *karma* etc. Ayurveda is *Shashwata Shastra* then whether there is any need of standardization? Ancient *Acharya* described *matra* (Medicinal dose) for *Panchakarma*. Those *matra* framed on the basis of *Dashavidha pariksha bhava*, *Koshtha*, *Sharir pramana* etc. Among these *Agni bala*, *Aatur bala* and *Vyadhi bala* are preferably considered. Ayurveda has described *matra* as *Prasruta* for *Basti*, *Prastha* for *Raktamokshana*, *Bindu* for *Nasya*, *Angulee pramana* for measurement of various body parts, *Anjalee pramana* for measuring quantity of body fluids. They have given parameter such as *Prasruta*, *Prastha*, *Bindu*, *Angulee praman*, *Anjalee pramana* which are already standardized. There is no need of standardization of *matra*, as the parameter for taking *matra* are standardized according to *Agni bala*, *Sharir bala*, *Vyadhi bala*, *Sharir rachana* of each person. By means of this standard dose can be derived for each person according the parameter.

KEY WORDS: Standardization, *Panchakarma*, *Matra*, *Bala*, *Agni*.

INTRODUCTION:

In Ayurveda two types of *chikitsa* described namely *Samshodhana* and *Samshamana*. *Samshodhana* includes *Panchakarma* therapies which are *Vamana*, *Virechana*, *Nasya*, *Basti*, and *Raktamokshana*¹. *Panchakarma* is comprehensive and integral part of Ayurvedic treatment and has its role in almost all therapeutic uses. *Panchakarma* therapy is useful in maintaining health of individuals and before administration of *rasayana* and *vajikarana* therapy. Ancient *Acharya* described *matra* of various *dravya* used in *Panchakarma* procedure's which are described on the basis of *dashavidha pariksha bhava*, *agni bala*, *aatur bala*, *vyadhi bala*, *koshtha* etc.

योगमासां तु यो विद्यादेशकालोपपादितम्।

पुरुषं पुरुषं वीक्ष्य स ज्ञेयो भिषगुत्तमः ॥ (च.सु. १/१२३)

The vaidya who thinks that each person is different from another person and gives proper treatment on

the basis of *desha*, *kaal*, *satmya*, *bala*, *prakruti*, *vaya* etc. known as "*Uttam bhishak*."² Ayurveda has different parameter (*matra*) for different procedures such as *Prasruta* for *Basti*, *Bindu* for *Nasya*, *Prastha* for *Raktamokshana*. Those *matra* derived from such parameter are standard in that period.

In today's era standardization needed everywhere. There are various researches going on which compare classical dose with routinely practiced dose for standardization of *matra*. But *Acharya* mentioned that those *matra* will change according to the *Agni bala*, *Aatur bala*, *Vyadhi bala* of person³. It means that standardization derives minimum and maximum limit of any dose according to condition.

Charaka has mentioned that *matra* of *dravya*, which is useful to obtain *Samyak yog lakshana* by expelling vitiated *dosha's* by avoiding *ayoga* and *atiyoga* are considered as proper *matra* for *Shodhana* of that

person and it varies according to person⁴. Thus *matra* are considered as standard based on parameter such as *dashavidha pariksha bhava*, *agnibala*, *aatur bala*, *vyadhi bala* and *koshtha*.

In *Panchakarma* therapy if proper *matra* is not used in recommended indication it may lead to hazardous effects. So that selection of *matra* has very important role in *Panchakarma* and it cannot be fixed or standardized.

Standardization:

“Standardization” word is brought forward by the science. To standardize means average out, equalize, systematize. Where noun ‘standard’ stands for meaning like grade, measurement, average, mean, level.

In present scenario doses are standardized on the basis of body mass index and age. But in Ayurveda doses are described on the basis of *dashavidha pariksha bhava*, *agni bala*, *sharir bala*, *sharir rachana*, *koshtha* etc. *Charaka* explains regarding *dashavidha bala pariksha*, which is combination of *rogi pariksha* and *roga pariksha*. *Prakrutyadi* nine fold examinations except *vikrititaha* are for *aatur bala pramana*, *Vikrutitaha pariksha* is for *vyadhi bala pramana*.

Charaka while explaining the *pariksha* by *anumana pramana* mentioned that *bala* should be assessed by *vyayam Shakti*.

Dashavidha aatur bala pariksha ⁵ –

1. *Prakruti* – If the person is of *vata prakruti* then he is having *alpa bala*, if *Pitta prakruti* then *madhyam bala* and if *Kapha prakruti* then *balavan*.
2. *Vikruti* - Here *roga* is assessed through *dosha*, *dushya*, *bala*, *kala*, *prakruti*, *desha*.
3. *Sarata* – To know the *bala* of *purusha dhatu sarata* is explained. If the person is having few *sarata lakshana* then he is having *heen bala*, if the person has maximum *dhatu sarata* then he has *madhyama bala* and if the person is *sarva dhatu sarata* then he has *uttam bala*.
4. *Samhanana* – The compactness is explained as well demarcated bones, well bound joints, well formed muscles and blood. If the person's compactness is good then he is *balavan*, if not then *alpabala* and if compactness is moderate

then he is *madhyama bala*.

5. *Praman* – It is measured by one's own *Angulee pramana*. It is used for the measurement of various body parts.
6. *Satmya* – If the person is *Sarvarasa satmya* then he is *balavan*, if the person is *ekarasa satmya* then he is of *alpabala* and if *madhyam satmya* then *madhyama bala*.
7. *Satva* – *Satva* means *mano bala*. It is of three types *pravar satva*, *madhyam satva* and *avara satava*. *Avar satva* people are contra indicated for *Samshodhana* therapy, they cannot tolerate pain and they are predominant in *tamoguna*.
8. *Aahar Shakti* - This is examined on the basis of *abhyavaharan shakti* and *jaran Shakti*. Strength and life depends upon *Ahar Shakti*.
9. *Vyayam Shakti* – If the person can perform more physical work then he is of *pravara bala*, if moderately then *madhyama bala* and if less then *avara bala*.
10. *Vaya* –
Balyavastha - up to 30 years *alpa bala*.
Madhyamavastha – 30 – 60 years are *uttam bala*.
Jeernavastha – 60- 100 years are *alpa bala*.

Thus from above explanation, It is very clear that multiple factors play role in deriving the “*Matra*”, and it is not wise to give same dose for everyone just because of similar body weight or age group.

Now the question arises regarding the *matra* of *Panchakarma* treatments. How the *matra* 4000 years back, will be relevant today? How it can be justified that Ayurveda is *Shashwata*.

From following references and explanation it may be justified.

Matra Vichar In Panchakarma –

In Ayurvedic *Samhita matra* of *dravya's* used in *Panchakarma* are mentioned. *Charaka* has stated that *dravya* which bring the *samyak yog* by expelling vitiated *doshas* by avoiding *ayoga* and *atiyoga* is considered as proper dose of *Shodhana* for that person and it changes according to person. *Chakrapani* commented on this that *Samshodhana matra* should be decided on the basis of *prakruti*, *bala*, *satmya*, *vyadhi avastha*, *dosha*, *satva* etc. of each person.

1. Vaman karma -

In *Vamana karma* *matra* of *vamak dravya madanaphala pippali* is described as *antarnakhamushti* ⁶. *Sharir rachana* of each person is different from other. That's why *matra* of *antarnakhamushti dravya* differs from person to person.

Practically *antarnakhamushti matra* is near about 3 - 5 gm. It reveals that *matra* described in ancient *samhita* can be taken as minimum and maximum limit which vary according to subjective factor like *Vaya*, *vyadhibala*, *aatur bala*, *agni* etc.

2. Basti -

Matra of *dravya* used in *basti* is described as *Prasruta*. *Acharya Charaka*, *Sushruta* and *Vagbhata* described *matra* of *niruha basti* on the basis of *vaya*. *Acharya Charaka* have given *matra* of *niruha basti* as 12 *prasruta*⁷. *Acharya Sushruta* has mentioned that $\frac{1}{4}$ of *niruha basti matra* is of *snehabasti*⁸. *Matra* of *snehabasti*, *anuvasan basti* and *matra basti* are half of each other in descending order respectively ⁹.

Matra of *niruha basti* = 12 *prasruta* = 96 *karsha* = 960 ml.

Matra of *snehabasti* = 6 *pala* = 240 ml.

Matra of *anuvasan basti* = 3 *pala* = 120 ml.

Matra of *matrabasti* = 1 $\frac{1}{2}$ *pala* = 60 ml.

Sharangadhara described *matra* of *niruha basti* as follows¹⁰.

Uttam matra – 1 $\frac{1}{4}$ *prastha* = 10 *prasruta* [80 *karsha*]

Madhyam matra – 1 *prastha* = 8 *prasruta* [64 *karsha*]

Heen matra – 3 *kudav* = 6 *prasruta* = [48 *karsha*]

But practically *Prasruta matra* of each person is different from other.

Dalhanacharya has given the definition of *prasruta* as follows.¹¹

प्रस्तोऽत्र कुञ्चिताङ्गुलिः पाणिः, न तु पलद्वयमिति ॥

(गयादास टीका सु.चि. ३५/७).

Eg. If *Prasruta pramana* of one's hand is 40 ml.

Then $40 \times 12 = 480$ ml is the *matra* of *niruha* for that person. This can be given 2-3 times to obtain *samyak lakshana*.

Sharangadhara mentioned that *heen matra* of *niruha basti* is 3 *kudav* = 48 *karsha* = 480 ml.

Depending upon this *matra* of *sneha basti* also

changes.

Snehabasti is $\frac{1}{4}$ of *niruha basti*. Then it will be $480 \div 4 = 120$ ml.

Anuvasan basti is of 60 ml and

Matrabasti is of 30 ml for that person.

Acharya Charaka has stated that *hrasva matra* of *snehapana* is *matra* of *matra basti*¹².

ह्रस्वायाः स्नेहमात्राया मात्राबस्ति समो भवेत् ॥ (च.सि.४/५३)

Matra of *snehapana* depends upon *agni bala* of patient hence it can be postulated that *matra* of *sneha basti* also depends on *agni bala*.

If *hrasva matra* of *snehapana* is considered as 30 ml then *matra* of *matra basti* can be considered as *hrasva matra* of *snehapana*. Hence *matra* of *anuvasan* and *sneha basti* will be considered double of *matra* of *matra basti* i.e. 60 ml and 120 ml respectively. *Niruha basti matra* is four times of *sneha basti matra*.

Then it will be like, $120 \text{ ml} \times 4 = 480 \text{ ml}$. This is the *heen matra* of *niruha basti* according to *Sharangadhara*. As *sharir pramana* and *agni* changes *matra* of *niruha basti* also changes.

3. Nasya karma-

Bindu is unit of measurement for the dose of *dravya* to be used for *nasya*. *Bindu* is defined as quantity of *drava* that dribbles down when the first two part of index finger are dipped into it and taken out ¹³. From this it is clear that quantity of *bindu* varies according to *drava dravya* used for *nasya* as well as *Angulee pramana* of person. *Vagbhata* has mentioned three different doses for *Marsha nasya* depending upon *dosha* and *bala* of patient.

Acharya	Uttam matra	Madhyam matra	Heen matra
Vagbhata ¹⁴	10 Bindu	8 Bindu	6 Bindu
Sharangadhar ¹⁵	8 Shaan	4 shaan	2 shaan
Sushrut ¹⁶	8 Bindu	Shukti	Panishukti

According to *Sharagadhara* 1 *Shaan* = 4 *masha*, 4 *masha* = 4gm = 4ml.

Thus, 8 *bindu* = 1 *shaan* = 4ml and 1 *bindu* = 0.5 ml.

According to *Ayurvedic Formulatory of India*,

1 drop = 0.05 ml

10 drops = 0.5 ml and

1 *bindu* = 10 drops.

A research study has been carried out for the standardization of quantity of 1 *bindu*. It was observed that mean *Bindu* is 0.49 ml. Thus it was established that *Sharangadhara's bindu* 0.5 ml is relevant in the present period¹⁷.

5. Raktamokshana-

Prastha is parameter used for measuring quantity of blood drawn from body. *Acharya Sushruta* has stated that maximum *matra* of *raktamokshana* in *balavan vyakti*, *bahudosha avastha* and *vayvastha purusha* should be 1 *prastha*¹⁸. *Dalhana* mentioned that in case of *vamana*, *virechan* and *raktamokshana* 1 *prastha* = 13 ½ *pala*¹⁹ and has given *Uttam matra* - 1 *prastha*, *Madhyam matra* - ½ *prastha* and *Heen matra* as *ardhaschatra karshaadhikshatapalan* depending upon the *bala*, *dosha* of person²⁰.

Uttam matra = 1 *prastha* = 13 ½ *pala*, 1 *pala* = 4 *karsha*.

Then 13 ½ *pala* = 54 *karsha* = 540 ml.

Madhyam matra = ½ *prastha* = 27 *karsha* = 270 ml.

Heen matra = *ardhaschatra karshaadhikshatapalan* = ¼ *prastha* = 125 ml.

Practically up to 120 ml of *raktamokshana* is carried out depending upon the *bala* of person. From above explanation it is clear that *matra* described in *samhita* can be taken in the range of minimum and maximum limit which may vary person to person respectively.

CONCLUSION:

Matra described in *Panchakarma* depends on subjective factors like *dasha vidha pariksha*, *koshtha*, *sharir rachana* etc.

Minimum and maximum range of *matra* can be derived from the references mentioned in *samhita* but it is not possible to fix same *matra* for all as each person varies from one another.

The parameter described as *prasruta*, *prastha*, *bindu* are already present in standard form hence there is no need of standardization as it may vary according to each person.

Thus, it can be safely claimed that if classical references are analysed properly, the standard parameter has been given and from that standard dose for a particular person can be derived based on the scientific logic.

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