

## APPLICATION OF WET AND DRY STATE OF HERBAL DRUGS IN FORMULATION ACCORDING TO AYURVEDA-A CRITICAL REVIEW

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### ABSTRACT

Scholars of Ayurveda have given utmost importance to the Maana (measurements) for making Aushadha Kalpana. Without the help of Mana the formulae cannot be designed. Shushka (Dry state) and Aardra (wet and fresh state) Dravya Grahan Niyam (Rule for taking fresh and dry herbal drug) is part of Mana Paribhasha. Some drugs like Vasa (Adhatodavastica), Kushmand (Benincasahispida), Nimb (Azadiractaindica) should be used in Aardra state without taking double quantity in Aardra state as stated in general rule, only for achieving good quality of product. Drug like Pippali (Piper longum), Maricha (Piper nigrum) have different properties according to their state, similar examples are collected in this article. Rules related to taking double quantity of Aardra Dravya according to quantity are collected in this article from Brihatrayi, Vangasena Samhita, Sharangdhar Samhita and Bhavprakash Nighantu.

**KEYWORDS**- Shushka, Aardra, Mana Paribhasha, Bruhat Trayi, Ayurveda

### INTRODUCTION

Knowledge of Wet and dry state of herbal drug plays important role in drug preparation. To achieve good quality of product, Ancient texts explained some rules regarding proportion of raw herbal drugs in wet and dry state, drugs to be used in wet state and dry state specifically. Herbal drugs like Aardrak (*Zinziberoffincinalis*), Pippali (*Piper longum*), Marich (*Piper nigrum*) have different properties in wet and fresh state and in dry state. Potency of herbal drug also differs according to its state. In Raja Nighantu, according to Acharya Narhari Pandit-New and fresh drugs are Suveerya (most potent), dry are medium potent and Jeerna (old) are Nishphala (not good in

potency)<sup>1</sup>. Brihatrayi mentioned Aardra and Shushka state of drug in some specific formulations; Nighantu Granthas have been explained properties of some herbal drug in fresh and dry state. Rules are explained as Paribhasha which should be applied to whole Grantha. This information is collectively mentioned in this Article.

### OBJECTIVE

To explore rules of taking herbal drug according to its state from Brihat Trayi and some selected Grantha of Ayurveda.

Important texts of Ayurveda commencing from Bruhat trayi, Vangasena Samhita, Sharangdhar Samhita to Bhavprakash have been the sources for collection of rules.

Examples of drug having different properties according to state are selected from *Bruht Trayi* and other classics. Only the formulations from *Bruhat Trayi* having clearly mentioned state of drug are considered for the study.

**Charaka Samhita – (Reference-Kalpasthna12/98)**

Aacharya Charaka explained *Maana Paribhasha* (weights) for *Shushka* (dry) state of *Dravya* (drugs). When *Drava Dravya* (drug in liquid state) or freshly collected (i.e. *Aardra Dravya*) should be taken in double quantity of prescribed dry herbal drug quantity. *Dravya* measured in *Pala* or *Tula* unit should not be taken in double quantity.

**Sushrut Samhita – (Reference-Chikitsasthana 31/7)**

Aacharya Sushruta also mentioned that *Maana Paribhasha* is for *Shushka* (dry)

form of drugs. *Aardra* (fresh) and *Drava* (liquid) drugs should be taken in double quantity of prescribed drug quantity.

**Ashtanga Hridaya- (Reference-Kalpasthan 6/23)**

*Aardra Dravya* and *Dravya* in liquid state measured in *Kudav unit* and onward unit should be taken in double quantity of prescribed quantity. i.e. liquids measured less than *Kudav unit* and *Shushka Dravya*(dry drugs) should not be taken in double quantity.

**Sharangdhar Samhita – (Reference-Sha.Dha.Pu.Kha.1/33-35)**

The general rule is to use a dry herbal drug only when it is freshly collected and dried, and all wet (green) drugs are to be used in double the prescribed quantity in all recipes. *Dravya* measured in *Pala* or *Tula* unit should not be taken in double quantity

**. Table No.1- Showing Shushka-Aardra Dravya Grahan Niyama of Sharangdhar Samhita**

| <i>Mana</i>                           | <i>Aardra</i>           | <i>Shushka</i>          | <i>Drava</i>            |
|---------------------------------------|-------------------------|-------------------------|-------------------------|
| <i>Gunja to kudav(125 mg-192 gm)</i>  | <i>Sama</i> (equal)     | <i>Sama</i> (Equal)     | <i>Sama</i> (equal)     |
| <i>Prastha to Tula (768-4.800 gm)</i> | <i>Dviguna</i> (Double) | <i>Dviguna</i> (Double) | <i>Dviguna</i> (Double) |
| <i>Tula onwards</i>                   | <i>Sama</i> (equal)     | <i>Sama</i> (equal)     | <i>Sama</i> (equal)     |

**Exception for General rule of Shushka-Aardra Dravya Grahan Niyam-**

Specifically mentioned name of drug that they should be taken in fresh (*Aardra*) form

only. These *Dravya* should not be taken in double quantity in fresh (*Aardra*) form. Those *Dravya* (drugs) are mentioned in Table No.2

**Table No.2 : Showing list of drugs should be used in Fresh form only**

| Sr. No | Grantha                                   | Classical Drug Names   |
|--------|---|--|
| 1      | <i>Sharangdhara Samhita</i> <sup>2</sup>  | <i>Guduchi, Shatavari, Vasa, Nimb, Kutaja, Kushmanda, Ashwagandha, Sahachari, Shatapushpa, Prasarini, Patol, Bala, Nagbala, ketaki, chatra, pathya, Punernava, Vidari, Indravaru, Palnkasha</i>    |
| 2      | <i>Bhavprakash Nig hantu</i> <sup>3</sup> | <i>Amruta, Nimb, Varshabhu, Kendivari, Kurantak, Aindri, Putigandha, Ket aki, Palankasha, Nagbala, Bala, Patol, Prasarani, Shatpushpa, Sahchari, Ashwagandha, Shatavari, Kushmand, Vasa, Kutaj</i> |

#### Vangsenā Samhita<sup>4</sup>-

Weight of wet (fresh green herbal drugs), dry and liquid substances-From Ratti to Kudav, all three dry, wet and liquid substances are to be taken in similar quantity.

For Aardra and liquid substance: 8 pala = 1 kudav

For dry substances: 4 pala = 1 Kudav

All substances measured in Prastha and onward should be taken in double quantity.

#### Bhavprakash Nighantu - (Reference-Mishra Varga 1/118)

Herbal drugs in Aardra (fresh, green, wet) are to be used in double quantity.

Examples of *Shushka* and *Aardra Dravya* specifically mentioned in literature of *Ayurveda* –

Herbal drugs those should be used in fresh form are not collectively explained in *Charaka Samhita*. In some formulation it is specifically mentioned.

**Table No.3: Drug to be used in Aardra state by Bruhat Trayi**

| Sr. No. | Name of formulation             | Reference  | Classical Drug name to be used in fresh form |
|---------|---------------------------------|--|--|
| 1       | <i>Chyavanprasha</i>            | <i>Charaka Chikitsa</i> sthana (Cha.Chi)1 <sup>st</sup> paad-1/62-69 | <i>Aamalaki</i>                              |
| 2       | <i>Chaturtha Aamlk Rasayana</i> | <i>Cha.chi</i> 1 <sup>st</sup> Paad-1/75                             | <i>Palashtvak</i>                            |
| 3       | <i>Aamalkavleha</i>             | <i>Cha.chi</i> .2 <sup>nd</sup> Paad-1/9-10                          | <i>Palash</i>                                |
| 4       | <i>KevalAamalak Rasayana</i>    | <i>Cha.chi</i> .3 <sup>rd</sup> Paad-1/10-13                         | <i>Aamalki</i>                               |
| 5       | <i>Dronipravesik Rasayana</i>   | <i>Cha.chi</i> .4 <sup>th</sup> Paad- 1/7                            | <i>Palash</i>                                |
| 6       | <i>Kalyanak Ghrita</i>          | <i>Cha.chi</i> . 9/36  | <i>Malatikusum (new)</i>                     |
| 7       | <i>Chaturtha sarpi guda</i>     | <i>Cha.chi</i> .11/66-69   | <i>Nava Aamalaka</i>                         |
| 8       | <i>Kanakarishtha</i>            | <i>Cha.chi</i> .14/160   | <i>Nava Aamalaka</i>                         |
| 9       | <i>Kutajadi rasakriya</i>       | <i>Cha.chi</i> .14/188   | <i>Palash</i>                                |
| 10      | <i>Dhoom Chikitsa</i>           | <i>Cha.chi</i> . 18/147  | <i>Vatashunga</i>                            |
| 11      | <i>Pichhabasti</i>              | <i>Cha.chi</i> .19/68  | <i>Kusha, shalmalivruta</i>                  |
| 12      | <i>Mootradosha hara yoga</i>    | <i>Sushrut uttartastra</i> 58/40                                     | <i>Aamalak</i>                               |
| 13      | <i>Pichhabasti</i>              | <i>Sushrut Uttar tantra</i> 40/142                                   | <i>Shalmali Vrunta</i>                       |
| 14      | <i>Kushmand Rasayan</i>         | <i>Ashtanga Hridaya Chikitsa Sthana (A.H.chi)</i> 3/113-116          | <i>Kushmanda</i>                             |
| 15      | <i>Kutajaavaleha</i>            | <i>A.H.chi</i> .8/104  | <i>Kutajtvaka</i>                            |
| 16      | <i>Chukra</i>                   | <i>A.H.chi</i> . 8/145-148   | <i>Draksha</i>                               |
| 17      | <i>Pichaa Basti</i>             | <i>A.H.chi</i> . 9/72  | <i>Shalmalivruta</i>                         |
| 18      | <i>Rasayana Kalpa</i>           | <i>A.H.Uttartastra</i> 39/28   | <i>Palash</i>                                |
| 19      | <i>Rasayana Kalpa</i>           | <i>AHi.Uttartastra</i> 39/58   | <i>Varahikanda</i>                           |
| 20      | <i>Rasayana Kalpa</i>           | <i>A.H. Uttar tantra</i> 39/155                                      | <i>Nava punernava</i>                        |
| 21      | <i>Kalpa</i>                    | <i>Cha.chi</i> .30/63-69-Aayurvedadipika Chakrapanidutta             | <i>Shatavari moola</i>                       |

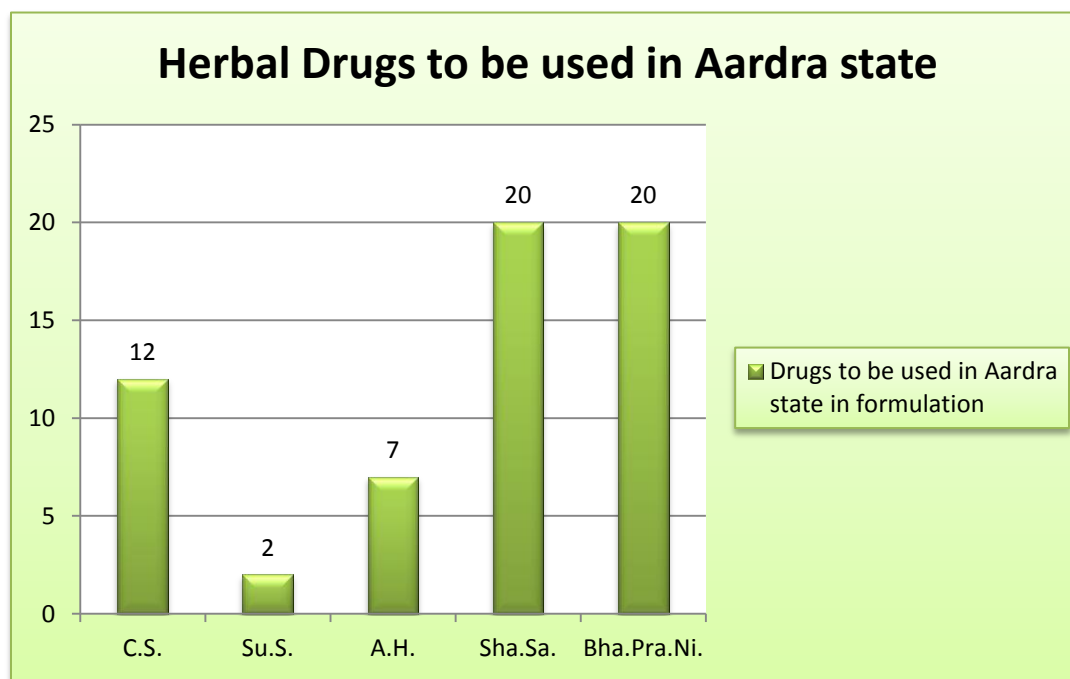
**Table No.4: Drug to be used in dry State from BruhatTrayi**

| Sr. No. | Formulation           | Reference             | Dravya to be used in dry state |
|---------|-----------------------|-----------------------|--------------------------------|
| 1       | Panchamooladya Ghrita | Cha.chi.15/88         | ShushkaMoolak                  |
| 2       | Moolak Yusha          | Cha.chi.17/98         | ShushkaMoolak                  |
| 3       | Kshar taila           | Cha.chi.26/227        | ShushkaMoolak and SunthiKshar  |
| 4       | Moolkadi Ghrita       | Su.Uttar Tantra 55/58 | Moolak                         |
| 5       | Siddha Ghrita         | A.H. chi. 10/28       | Moolak                         |

**Table no.5: Single Dravya(Drugs) in Aardra and Shushka state specifically mentioned with their Different properties in literature**

| Grantha                | Drug name |          | Reference                    |
|------------------------|-----------|----------|------------------------------|
| 1.Sushrut Samhita      | Aardra    | Shushka  |                              |
|                        | Aadrak    | Shunthi  | Su.Su. 46/226-227            |
|                        | Maricha   | Maricha  | Su.Su46/224;Bha.Pra.Ni.2/56; |
|                        | Pippali   | Pippali  | Su.Su46/223                  |
| 2.Bhavprakash nighantu | Ardraka   | Shunthi  | 2/46                         |
|                        | Marich    | Marich   | 2/56-56                      |
|                        | Dhanyaka  | Dhanyaka | 2/77-79                      |
|                        | Puga      | Puga     | 7/43-44                      |

**Observation-** No. of AardraDravya state drugs mentioned in Various lexicon of Ayurveda- C.S.-Charak Samhita , Su.S.-Sushrut Samhita , A.H.- AshtangHriday,Sha.Dha.- Sha.S,- SharangdharSamhita,Bha.Pra.Ni- Bhav Prakash Nighantu



## DISCUSSION

In all *Granthas* of *Ayurveda Maana Paribhasha* has been explained for dry herbal drugs. In case of unavailability of preserved dry herbal drug *Aardra* (fresh) drug can be used instead. It should be taken in double quantity of dry drug. This is general rule of taking fresh and dry herbal drugs which is explained by majority of *Granthas* of *Ayurveda*. Because dried drug is considered *Guru* (heavy to digest) and *Tikshana* (Concentrated active phytoconstituents)<sup>5</sup>.

There are some exceptional drugs like *Vasa*, *Kushmanda*, *Nimbetc.* for general rule. This rule may be stated due to variation in moisture content in plants. Another reason may be during drying process some chemical changes may takes place. Some phyto constituents like volatile oil may get evaporated. *Vasa* losses its *Kaphasravan* (expectorant of mucus) property after drying, may be due to evaporation of volatile oils in it during drying process.<sup>6</sup>

Drugs like *Aadraka*, *Maricha*, *Pippali* differ in properties in *Aardra* and *Shushka* state only. *Guduchi*, *Vasa*, *Kushmanda*, *Kutaja* are the commonly explained *Dravya* to be used in *Aardra* form only.

*Gurutva* or *Laghutva* Property of a drug does not differ according to its quantity like *Ratti*, *Kudava*, *Prastha*, *Tula* etc. So *Aardra Dravya* should take in double quantity irrespective of its quantity according to *Aacharya Sushrut*. But some *Aacharya* like *Aacharya Sharangdhara* have different opinion about taking double quantity. *Dravya* measured in *Gunja to Kudavor Tula* and onward should not be taken in double quantity.

*Gunja to Kudav* quantity of raw drug in *Shushka* and *Aardra* state should be considered in equal amount of *Guna*. If *Aardra Dravya* is taken in double of prescribed quantity in *Kwatha* (decoction) preparation, then more quantity of *Kwatha*

*Dravya* and less amount of water during preparation of *Kwatha* may results into improper preparation of *Kwatha*<sup>7</sup>. This may be due to *Aardra Dravya* is *Laghu* and *Alpa Veerya* (low potency) in nature. Active constituents may be unstable in nature. So, active constituents may get extracted in maximum quantity in water. But *Shushka Dravyas* have stable *Veerya*. They are *Guru* in nature. So, active constituents may not get extracted in whole amount during process. As a result final product does not differ in quality. This is more practical approach of taking quantity of *Shushka* and *Aardra Dravya*.

Rule of taking double quantity in fresh state should not be applied to *Visha Dravya* (Poisonous drugs).As these drugs are *Tikshna* in nature.

Medicinal plants constitute a source of raw material for both traditional and modern systems of medicine<sup>8</sup>. So it is necessary to know state of drug to get good amount of phytoconstituents.

## CONCLUSION

For preparation of good quality of Product State of drug and its proportion in formulation should be taken into consideration. *Dvigunata* (taking double quantity of prescribed drug quantity) of *Aardra Dravya* should be done according to its quantity in formulae. Drug should be taken in fresh or dry form according to expected property. One should follow the *Maana Paribhasha* of respected *Granthas* of formulae for proper measurement.

## REFERENCES

1. Raja nighantu [Internet]. Niimh.nic.in. 2016 [cited 20 December 2016]. Available from: <http://niimh.nic.in/ebooks/e-Nighantu/rajanighantu/?mod=read>
2. Dr. Bramhanand Tripathi . Sharangdhar Samhita. 1st ed. Varanasi: Chaukhamba Surbharati Prakashan; 2013. Page no.12 *Shloka 1/45-47(Purva khanda)*

3. Bhavaprakasha nighantu [Internet]. Niimh.nic.in. 2016 [cited 20 December 2016]. Available from: <http://niimh.nic.in/ebooks/e-Nighantu/bhavaprakashanighantu/?mod=read&h=Ardra Shloka 1/118-120>
4. Pandit Vd. Hariprasad Tripathi, Vangsen Samhita with Hari Vyakhya, Edition 1<sup>st</sup> edition -Varanasi, Chaukhambha Sanskrit Series Office, 2009, page no.10-11, (Shloka No.94-104 *Nidanadhikar*)
5. Kaviraj V d. Ambikadutta Shastri, edited by Vd. Rajeshwardutta Shastri, *Bhaishajya ratnavali*, 1<sup>st</sup> edition, Varanasi, Chaukhambha Prakashan, Edition: reprint 2013, page no.49, Sholoka 4/13
6. Vd. Shyamarao Dho. Kulkarni, "Ayurvediya Rasaushadhi Nirmana" Edition 1<sup>st</sup>, Poona, published by Continental prakashana, 1981, page no.534
7. Pandit Vd. Hariprasad Tripathi, Vangsen Samhita with Hari Vyakhya, Edition 1<sup>st</sup> - Varanasi, Chaukhambha Sanskrit Series

Office, 2009, page no.10, Shloka No.95-96 *Nidanadhikar*

8 Jyoti Brijesh Gavali : Current Trends in Analytical Methods of Medicinal Plant Drugs, AYURPUB 2016;I (3) 101-107

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### Images showing common drugs having different properties according to its state.

| Wet state  | Dry state   |
|--|---|
| <br><i>Zinziber officinalis</i> | <br><i>Zinziber officinalis</i> |
| <br><i>Piper nigrum</i>         | <br><i>Piper nigrum</i>         |
| <br><i>Piper longum</i>         | <br><i>Piper longum</i>         |