

A Review on Namarupa Vigyana and its Importance in Dravyaguna.

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Abstract: *Dravyaguna vigyana is the branch of Ayurveda that deals with the study of dravya. Naming the Dravya is very essential in order to identify, classify and differentiate a plant from the other. Naming a plant provides a means of communication and reference. Nomenclature of medicinal plants has been an integral part of Ayurveda since vedic period. Importance of namarupa vigyana is a basic need of practitioners to identify the exact drug or plant.*

Keywords: Dravyaguna, Namarupavigyana, Nomenclature, Identify, Naming

I. INTRODUCTION

Namarupa vigyana is a science that deals with the identification and classification of various entities, including diseases, medicinal plants and therapeutic processes. Namarupa vigyana is not only a naming and formulating science, but also a way to understand the interconnections of things in the universe. In ancient and medieval times, there was no system of morphological description of plants as done now days. This object, however was fulfilled by coining names and synonyms which indicate the salient features of plants. In old days, plants were like family members participating with the people mutually on occasions of joy and grief.

Acharyacharak has emphasized that the best physician should know proper identification of plants, administration of these plants according to exact place and times keeping in view the individual constitution.¹

If drug is not identified properly by their name, form, properties and actions and improperly administered even if known, both conditions are responsible for complications.²

So identification of drug or a plant is one of the important factor in drug research and clinical research.

Relation between Nama and Rupa:-

Namarupa vigyana is a special branch of dravyaguna vigyana that exclusively deals with the study of Nama (various name) and Rupa (their forms). Acharya PV sharma says that the word namarupa vigyana can be interpreted in three ways namely.³

That by which names and forms of substances (Dravya) are known.

That which imparts knowledge of the forms (Rupagyana) of substances on the basis of names.

That which deals with proper correlation of names and forms so that the entity can be identified correctly.

The correct meaning followed by namarupa vighyanam is deals with characterization of medicinal plants on the basis of etymological derivation of names and synonym.

Nama denotes basonyms (Mukya Nama) as well as synonyms (Paryayas). Rupa is specific character (Swarupa) of the substance which includes morphology as well as properties and action (Gunakarma). Study of Nama and Rupa together of medicinal plants constitute the branch known as pharmacognosy which deals with identification of medicinal plants.

Nama rupa vigyana in Nighantus:

There is scattered knowledge about Nama rupa in Nighantus.

Dhanvantari Nighantu:

Dhanvantari Nighantu says names one or many are assigned to plants according to habital, form, colour, potency, taste, effect and efficacy etc. many synonyms indicate the original source of plants while some are reminiscent of the place of their trade or commercial transaction.



Example: kasmiraka - kumkum
Kirata - kiratatikta
Dravidi – Ela
Malayaja – chandana
Madri – ativisha

Correlation of name and form is very important as without this one cannot identify the plant even if seeing it.⁴

Raj Nighantu:

Raja Narahari Pandita, the author of Raj Nighantu provides basis of Dravya namakarana.⁵ He explains 7 important factors to be considered while naming a plant.

| Sr. No. | Dravya Nama karana Adhar | Plants named on the basis of Significance | Dravya | Dravya synonyms with meaning |
|---------|--------------------------|--|---|---|
| 1. | Rudhi | The names which have been in us traditionally are called as Rudhi. | Guduchi (Tinospora cordifolia) Vasa (Adathoda vasica Linn.) | Guduchi – well known potent drug Atarusha – very useful drug |
| 2. | Prabhava | Named based on their common utility which is innate to that particular plants is termed as Prabhava. | Khadira (Acacia catechu L.f) Bakuchi (Psoralea corylifolia Linn.) Sharapunka (Tephrosia purpurea Linn.) Langhali (Gloriosa superba Linn.) | Kushtaghni -alleviate skin disorders. Shwitragnhi – alleviate Shwitra. Pleehari – alleviate spleen disorders. Garbhanut- that which expels out the fetus. |
| 3. | Deshokta | Named on their habitat or source from which they belong to | Chandana (Santalum album Linn.) Kumkuma (Crocus sativus Linn.) Ela(Elettaria cardamomum Linn.) | Malayaja- grows in Malaya region i.e. western ghats. Kashmira- grows in Kashmir and Bahlika. Dravidi – grows in Kashmir |
| 4. | Lanchana | Named based on their morphological signs | Aragwadha (Cassia fistula Linn.) Agastya (sesbania grandiflora Linn.) Apamarga (Achyranthes aspera Linn.) Ela (Elettaria cardamomum Linn.) Vidanga (Embelia ribes Burm.F) | Deerghaphala –that which bears long pods. Vakrapushpa- that which bears curved flowers. Kharamanjari- that which bears spinous inflorescence. Triputa – that which bears fruits with three surfaces Chitratanidula – that which bears fruits with whitish patches |
| 5. | Upama | Named based on the similes. The plant parts resembling the animals or other objects. | Ativisha (Aconitum Heterophyllum Linn.) Katuki (Picrorhiza kurrao Linn.) | Shruni – horn like roots. Mastyashakala- the rhizome resembles the scales of fish. Kimshuka – flowers resemble parrots beak. |



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| | | | Palasha (Butea monosperma Linn.) Ashwagandha (Withania somnifera Linn.) Vasa (Adathoda vasica Linn.) | Varahakarni- leaves resemble pig's ear. Vajidanta- flowers resemble teeth of horse and Simhasya. |
| 6. | Veerya | Named based on their Veerya. | Pippali (Piper longum Linn.) Shunti (Zingiber officinale Linn.) Udumbara (Ficus racemosus Roxb.) Bala (Sida cordifolia Linn.) Maricha (Piper nigrum Linn.) | Teekshna tandula- pungent fruits. Ushana –which is irritant Sheetavalkala –with bark as sita Sheeta – cold allaying Ushna – pungent |
| 7. | Itarahwaya | Other names which do not belong to the above six categories | Lavana (Syzygium aromaticum) Jyotishmati (Celastrus paniculatus Linn.) Shatavari (Asparagus racemosus Willd.) Shatapushpa (Anethum sowa Linn.) Guggulu (Commiphora mukul) Jyotishmati (celastrus paniculatus Linn.) | Lavana – alleviates many disorders. Jyotishmati – Varee – one of the best drug. Shatahwa –bears numerous flowers. Pura – the best amongst gum resin. Panya – article of trade |

Factors considered while giving names and synonyms to plants in Ayurveda^{6, 7, 8, 9}

| Sr. No. | Dravya Nama karana Adhar | Plants named on the basis of Significance | Dravya | Dravya synonyms with meaning |
|---------|--------------------------|---|--|---|
| 1. | Swarupa bhodhaka | Named based on the habit of the plant. Habit is the characteristic from in which plant species grows. ¹⁰ | Vata (Ficus benghalensis Linn.) Punarnava (Boerhavia diffusa Linn.) Prasarini (Paederia foetida Linn.) Eranda (Ricinus communis Linn.) | Nyagrodha – the fibers or prop roots descend from its branches to the earth. Punarnava – becoming young or new again Prasarini – that which spreads. Sheeghree and Vardhamana – that which grows and spreads fast. |
| 2. | Avayava bhodhaka | Named based on the morphology of different parts of the plants. Patra – leaves | Bilva (Aegle marmelos Linn.) Kanchanara (Bauhinia purpurea Linn.) Khadira (Acacia catechu L.f) Karanja (Pongamia pinnata Linn.) Saptaparna (Alstonia scholaris | Triparni – trifoliate leaves Yugmapatra – bifid leaves Balapatra – small leaves Snigdhapatra –glossy leaves Saptaparni – seven leaves |



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| | | | L.R Br.) Ikshu (saccharum officinarum Linn.) Shimshipa (Dalbergia sissoo Roxb.ex.Dc.) | Asipatra –leaves with sword like edges Mandalapatraka – round shaped leaves |
| | | Pushpa flowers | – Shatapushpa (Anethum sowa Linn.) Bala (Sida cordifolia) Ashoka (Saraca indica Roxb.) | Shatapushpa – bears hundreds of flowers Peetapushpa- bears yellow flowers Gucchapushpa – cluster of flowers Raktapushpa –red flowers Pindapusha – flowers in clusters Madhupushpa – sweetish flowers |
| | | Phala – fruits | Dhatura (Datura metel Linn.) Bilva (Aegle marmelos Linn.) Arka (Calotrpis procera R.br.) Kushmanda (Benincasa hispida Thunb.) Udumbara (Ficus recemosus Roxb.) Narikela (Cocos nucifera Linn.) | Kantakapahala – bears fruits that are spiny Kathina phala –bears hard fruits Shukaphala fruits resemble parrot Brihataphala – bears huge fruit Jantuphala – insects enter inside Sadaphala – yields fruits throughout the year in all seasons |
| | | Beeja – seeds | Kutaja (Holarrhena antidysentrica Linn.) Patha (Cissampelos pareira Linn.) Dadima (Punica granatum Linn.) | Indrayava – seeds resemble Yava Ekashteela – has single stony seed Dantabeeja – Manibeeja- has seeds that resemble teeth or ruby |
| | | Kanda –stem | Trivrut (Operculina Turpethum Linn.) Guduchi (Tinospora cardigolia) Kalashaka (Murraya koenigii Linn.) Satavari (Asperagus racemosus Willd.) Ativisha (Aconitum | Tribhandi – Trayastra – that which has triangular or 3 winged stem Chakrangi – section of stem shows circular structure Kalashaka – blackish stem Shatamuli –hundreds of succulent tuberous roots Suklakanda –whitish rhizome Tamramula – copper colored roots |



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| | | Mula – root | heterophyllum Linn.) Manjishta (Rubia Cordifolia Linn.) Sariva (Hemidesmus indicus L.R.Br.) | Sugandhimula – aromatic roots Swarnaksheeri –bright yellow latex Hemadugdha – having golden latex Ksheerashukla – having whitish latex Ksheeraparnaka- ksheera kanadaka - it has profuse latex in leaves and stem |
| | | Ksheera – latex | Swarnaksheeri (Argemone maxicana Linn.) Udumbara (Ficus racemosa Roxb.) Vidari (Pueraria tuberosa Willd.) Arka (Calotropis procera R.br.) | Shadagranthi – which has many nodes Shatagranthi – which has many nodes Granthiman – nodular stem |
| | | Granthi -nodes | Vacha (Accorus calamus Linn.) Durva (Cynodon dactylon Pers.) Asthisrunkhala (Cissus quadrangularis Linn.) | Teekshnakantaka – has sharp spines Kantakari – kantakini- thorny Gokantaka –Sthalakantaka – Swadukantaka- Bhakshakanta- Kantaphala – thorny Vajrakantaka - Yugm |
| | | Kantaka – thorns | Gokshura(Tribulus terrestris Linn.) Snuhi (Euphorbia nerifolia Linn.) Apamarga (Achyranthes aspera Linn.) | kantaka – vyaghranakha – with sharp twin spines Adhashalya – Spiny inflorescence which is pointed downwards Saradruma- Raktasara – reddish heartwood Nisara – pseudo –stem has no heartwood Peetasara – yellowish heartwood |
| | | Sara – heartwood | Khadira (Acacia catechu L.F.) Kadali (Musa paradisiacal Linn.) Ankota (Alangium salvifolium L.F.) Arjuna (Terminalia arjuna) Udumbara (Ficus glomerata Roxb.) Nimba (Azadirachta indica A. | Dhavala – whitish bark Sheetavalkala – with cold bark Varatwacha – bark usefull for skin Kapiromaphala and Markati – legumes covered with stiff hairs like those of monkey |



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| | | Valkala – bark | Juss) Kapikacchu (<i>Mucuna prurita</i> Linn.) | Hareetamanjari and bahumanjari – greenish and multiple inflorescence Shikhari – flowers at the terminal end of inflorescence |
| | | Roma – hairs | Tulasi (<i>Ocimum sanctum</i> Linn.) | Vruntakaphala – long petiole Vruntika – long flower stalk |
| | | Manjari – inflorescence | Apamarga (<i>Achyranthes aspera</i> Linn.) | Deerghavrunta – long petiole |
| | | Vrunta – stalks | Vartaki (<i>Solanum melongena</i> Linn.) Neelini (<i>Indigofera tinctoria</i> Linn.) Alaru (<i>Alanthus excels</i> Roxb.) | |
| 3. | Guna bhodhaka | Based on the gunas. Shabda- sound | Gunja (<i>Abrus precatorius</i> Linn.) Shyonaka (<i>Oroxylum indicum</i> L.Kurz.) | Gunja – fruits make sound Nata –Kutannata and Tuntuka – fruits hang and dance with a sound |
| | | Sparsha texture | Parijata (<i>Nyctanthus arbortristis</i> Linn.) Kantakari (<i>Solanum indicum</i> Linn.) | Kharapatra – rough leaves Dushparsha – difficult to touch because of thorns |
| | | Rupa appearance | Bakuchi (<i>Psoralea corylifolia</i> Linn.) Arka (<i>Calotropis procera</i> R.Br.) Padmaka (<i>Prunus cerasoides</i> D.Don.) | Suparna – beautiful leaves Roopika – good looking Charu – beautiful |
| | | Rasa –taste | Gokshuru (<i>Tribulus terrestris</i> Linn.) Amlika (<i>Tamarindus indica</i> Linn.) Yashtimadhu (<i>Glycyrrhiza glabra</i> Linn.) Vidarigandha (<i>Pueraria tuberosa</i> Wild.) | Swadukantaka – Sweetish Amlika – sour fruit Madhuyashti –sweetish Swadukanda – sweetish tuber |
| | | Gandha – smell | Ashwagandha (<i>withania somnifera</i> Linn.) | Vajigandha and Ashwagandha – smell like that of horse Sugandhiphala – aromatic fruits |



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| | | Anyaguna - other qualities | <p>Bilva (Aegle marmelos)</p> <p>Sariva (Hemidesmus indica L.R.Br.)</p> <p>Agaru (Aquilaria agallocha Roxb.)</p> <p>Pippali (piper longum Linn.)</p> <p>Karanja (Pongamia pinnata)</p> <p>Agaru (Aquilaria agallocha Roxb.)</p> <p>Shalaparni (Desmodium gangeticum DC.)</p> | <p>Sugandhimula – aromatic roots</p> <p>Sugandhi – aromatic tree</p> <p>Teekshnatandula – pungent fruit</p> <p>Snigdhaparni – leaves are glossy</p> <p>Rajarha – which is valuable</p> <p>Soumya and Sthira – acts as rasayana and strengthens the body</p> <p>Sheeta – cooling potency</p> <p>Ushana – hot potency</p> |
| 4. | Prabhava bhodhaka | Named based on prabhava –effect | Shirisha (Albizia lebbek) | Vishaghna – which counteract the effects of poisons or toxins in the body |
| 5. | Karma bhodhaka | Named based on action | <p>Khadira (Acacia catechu L.F.)</p> <p>Ashwagandha (Withania somnifera Linn.)</p> <p>Vasa (Adathoda vasica Linn.)</p> <p>Arjuna (Terminalia arjuna Roxb.)</p> <p>Ativisha (Aconitum heterophyllum Linn.)</p> | <p>Kushaghni – use for leprosy</p> <p>Putrada – provides male progeny</p> <p>Kaphaha – kasaghni – use in respiratory disorders.</p> <p>Hridrogavairi – in use cardiac disorders and shwasaneshwara – use in dyspnea</p> <p>Shophapaha –it cures shoph</p> |
| 6. | Udbhava bhodhaka | Named based on utpatti –Yoni Rohana – | <p>Agaru (Aquilaria agallocha Lour.)</p> <p>Guduchi (Tinospora cardifolia Willd.)</p> <p>Agnimantha (Premna integrifolia Willd)</p> <p>Arjuna (Terminalia Arjuna Roxb.)</p> | <p>Mruganabhi and Krimija – a type of fungus</p> <p>Kandaruha and chinnaruha –it is generated from stem and when cut, it regenerates.</p> <p>Nadeyi –grows on river sides</p> <p>Nadisarja – which grows in vicinity of water strems</p> |
| 7. | Lokopayog i bhodhaka | Besed on usage | Khadira (Acacia catechu L.F.) | Yajniya , Gayatri – wood is regared as holy and used in |



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| | | | Guggulu (Commiphora mukul Hook.) Agaru (Aquilaria agallocha Roxb.) Vamsha (Bambusa bambos L. | sacrifices Devadhupa – use as incense in god's worship Vishwadhupakam – incense and perfume Karmara-venu –dhanu-drum-It is used for making bows |
| 8. | Itihaasa prasiddha | Named base on the historical background | Ashwatha (ficus religiosa) Arjuna (Terminalia Arjuna Roxb.) Tulasi (Ocimum sanctum Linn.) Amalaki (Embllica officinalis Gaertn.) | Bodhivrksa – Gautama attained eulightenment under this tree Partha – used for heart diseases Devadundhubhi – have numerous spikes like trumpet Shivam – it is benifecial in all ways |
| 9. | Prashathi bhodhaka | Named base on the appreciation | Tulasi (Ocimum sanctum Linn.) Agnimantha (Premna integrifolia Willd) Agaru (Aquilaria agallocha Lour.) Agastya (Sesbania grandiflora Linn.) | Mangalya – it is ues in many rituals Jayanti – it conquers many diseases. Rajarham – which is valuable Munidruma – it blossoms at the time when the star Agastya appers in sky. |
| 10. | Desha bhodhaka | Named base on the native or place | Pippali (Piper longum Linn.) Marich (Piper nigrum Linn.) Twak (Cinnamomum zeylanicum Breyn.) Kampillaka (Mallotus philippinensis Muell.) Amalaki (Embllica officinalis Gaertn.) | Magadhi – grows in Magadha desha Kalingaka – grows in kalinga desha Saihamalam – grows in saihamalam desha Kampillaka – grows in kampilla desha Korangakam – grows in koranga desha |
| 11. | Kala bhodhaka | Named base on the period | Vibhieetaki (terminalia bellirica Gaertn.) Saptaparna (Alsonia scholaris Punarnava (Boerhavia diffusa Linn.) | Vasantha – grows in vasantha kala Sharada – grows in sharada kala Varshaketu – varshabu – grows in varsha kala |
| 12. | Avayava sadrusha | Named base on the body parts | Panasa (Artocarpus heterophyllus Lam.) Aragwadha (Cassia fistula Linn.) Eranda (ricinus communis Linn.) Draksha (Vitis vinifera Linn.) | Amashayaphala – fruits resemble stomach Chaturangula – having four finger length fruit Gandharvahastha – palmately lobed leaf Gostanee – fruits resemble the udder |



Namarupa Vigyana as a source of controversy:

In the medieval period, a large number of synonyms accumulated which denoted more than one plant and this lost accuracy. A plant whose botanical identity is controversial is considered as Sandhigdha dravyas.

Few example for controversies:

Amruta is the synonym used for more than one plan like Guduchi (*Tinospora cordifolia* Willd.), Haritaki (*Terminalia chebula*) and Amalaki (*Embllica officinalis* Gaertn.)

Vijaya - Haritaki (*Terminalia chebula*), Bhanga (*Cannabis sativum*) and Vacha (*Acorus calamus* Linn.)

Samanga – Lajjalu (*Mimosa pudica* Linn.) and Manjishta (*Rubia cordifolia* Linn.)

Sadaphala – Narikela (*Cocos nucifera* Linn.) and Bilva (*Agele marmelos* L.)

Swadukantaka – Gokshura (*Tribulus terrestris* Linn.) and Vikankata (*Flacourtia indica* BURM.)

Sutiktaka and Varatikta – Nimba (*Azadirachta indica* A. Juss) and Rohitaka (*Tecomella undulate* Seem.)

Amogha – Shyonaka (*Oroxylum indicum* L.) and Vidanga (*Embelia ribes* Burm.)

Ananta – Sariva (*Hemidesmus indicus* L.) and Durva (*Cynodon dactylon* L.)

Rasala – Ikshu (*Saccharum officinarum*), Amra (*Mangifera indica* Linn.) and Draksha (*Vitis vinifera* Linn.)

Importance of namarupa vigyana:

Ancient physicians used to identify the plants based in their synonyms. As there was no scientific system of classification and nomenclature of plants, synonyms were the only tools. This nomenclature system has witnessed evolution since ages.

Earlier, during the vedic period, many plants were in use. There was no question of confusion. Most of the plants were named based on historical background like, mahabala and muchakunda.¹¹ as they were the names of Gods. During samhita period also the names remained uncontroversial as very few names were used as synonyms.

Nighantu period marked revolutionary steps in the field of synonyms as the number of synonyms were increased significantly. Nighantus are the lexicons which are the glossaries of the classical texts. It is believed that, each of Bruhatrayee had separate Nighantu.¹² Earlier Nighantus contained only the names and synonyms whereas later ones contained the synonyms along with properties of those plants. Due to namarupa vigyana it made very easy to understand plant morphology even in the minute note. Namarupa vigyana not only help to identify the plant, but also to understand its habit, habitat, propagation, flowerin – fruiting seasons, availability, main action and rasapanchaka.

By Nama rupavigyana we can gain the knowledge of name features, properties and actions of drug. With the help of various synonyms of plants, one can know its prominent characters that are morphology i.e. Bhesajaswaroop and Pharmacology i.e. Bheshajaprayoga.¹³

II. CONCLUSION

The stability of namarupa vigyana can be possible in future only when “Authoritative lists” of accepted names are prepared and made widely available by an internationally recognized body. The study and knowledge of namarupavigyana is an important aspect in both Samhitas and Nighantus to Ayurveda Vaidyas. To conclude, I claim that the role of namarupa and plants are so very intimate that they are the two faces of the same coin.

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