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Tactics of nomenclature in Ayurveda: An up to date review

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Abstract

The urge for exploration is the inherent quality of man. Exploration of the nature for the betterment of humanity made ancient seers to coin synonyms of the dravyas as per their medicinal uses, gross morphological characteristics etc, such that there is no confusion in identifying and using the available dravyas. With the advancement of time more and more number of plants were explored which were somewhat similar morphologically but varying from each other in one or the other way. Thus, a need of keen morphological description of plants aroused and modern science provided a number of tactics to identify and classify the available flora. So, the methods of nomenclature witnessed a sea change from the ancient times till today's 21st century. So, the present work aims to discuss an up to date insight of the tactics adopted for nomenclature of plants in chronological manner.

Keywords: Nomenclature, Nāmrūpagyāna, Coining synonyms, Nighantu, Āyurveda

Introduction

Ayurveda is a body of wisdom designed to help people stay vital while realizing their full human potential and not merely a system of treating illness. For the fulfilment of this novel purpose, it urges to follow the inherent principles of nature. This urge to explore nature for the betterment of humanity made ancient seers to coin synonyms of the dravyas as per their medicinal uses, gross morphological characteristics etc, such that there is no confusion in identifying and using the available dravyas at individual levels. With the advancement of time more and more number of plants were explored which were somewhat similar morphologically but varying from each other in one or the other way. Also with urbanization a gap between the mankind and nature got created leading to a great loss of treasure some morphological as well as medical aspects of traditional knowledge. Thus, to conserve and cope up with vision of ancient seers a need of keen morphological description of plants aroused and modern science provided a number of tactics to identify and classify the available flora. Thus the methods of nomenclature witnessed a sea change from the ancient times till today's 21st century. So, the present work aims to discuss an up to date insight of the tactics adopted for nomenclature of plants in chronological manner.

Nomenclature of Plants in Āyurveda [1-4]:

The need for identification of plants and exploring their medicinal values dates back to Vedic era (2500 BC to 600 BC). So, a review is done right from Vedic era following with samhita era and Nighantu era till modern era.

Vedic era

1. Classification of Plants given in Rgveda

The oldest treatise Rgveda, classifies plants into three groups, viz. trees (Vṛkṣa), herbs (ouṣadhi) and creepers (vīrudha).

2. Classification of Plants given in Atharva-veda

This treatise contains descriptions of numerous medicinal plants and classifies them into four groups, viz. Atharvaṇī, Aṅgīrasī, Daivī, Mānuṣyajā.

Samhitā era:

Classification of Plants given in Caraka-samhitā (1st Century AD)

Ācārya Caraka categorizes plants into four groups, viz. Vanaspati (Trees not possessing

visible flowers), Vānaspatya (Trees possessing visible flower and fruits), Ouşadhi (Herbs withering after fruiting) and Vīrudha (herbs with twining, crawling or climbing stems) [5]

Classification of Plants given in Sushruta samhita (600 BC):

Ācārya Suśruta opines an identical classification as that of Caraka. He gave the term Vṛkṣa for Vānaspatya [6].

Nighanţu era

Classification of Plants given in Dhanvantari-nighaṇṭu (14th century A.D.) [7].

There are innumerable drugs (medicinal plants either explicitly mentioned or otherwise) and their nomenclature either in Sanskṛta or in Prākṛta i.e. regional languages is also innumerable. It appears that one drug especially medicinal plant is known by a particular name. The other plant is also known by the same name. Because this practice is followed in the treatises and in the common usage therefore it cannot be called as repetition. When it is found that such different having similar nomenclature are mentioned in a single formulation then the purpose, the reference, the treatise, and the reasoning should be taken into consideration for their proper usage.

One particular name given to many drugs while one drug is known by many names. These names are given according to specificity, morphological characters and pharmacological properties like rasa, vīrya, vipāka and prabhāva.

Somebody might have heared a single name of a plant and he identifies the same plant by that particular name only. While the other person identifies it by some other name and the third one identifies the same plant which is known to him and thus the names of plant vary in different regions.

Classification of Plants given in Rājanighaṇṭu $(14^{th}$ century A.D.) $^{[8]}$

Rājanighant is one of the eminent nighantu in Dravyaguna till date. This nighantu is also known with names "Nighantu Rāja", "Abhidhāna Chūḍāmaṇi", "Dravyābhidhāna gaṇa samgraha". Without a shred of doubt this nighantu is the king of all Nighantus as the name claims. The author "Narahari Pandita" is the son of "Iswara Suri" belonging to time period ranging between 13th to 17th centuries. Though it is not the first nighantu recognizing the importance of nomenclature of plants but the concepts of coining of synonyms for a particular herb were remarkably scientific and were explained elaborately. To gain good knowledge regarding the etymology, place of origin, the properties or nature of drug, etc. sound scientific principles were geared up in form of seven factors namely Rūdhi, Swabhāva, Deśa, Lānchana, Upamā, Vīrya, Itarāhwaya. An attempt has been made to enlighten the preciseness of the author in coining the synonyms in view of modern pharmacological and clinical research on various herbs.

The preciseness of the author in coining the synonyms may be seen while elaborating each aspect of nomenclature

- A. **Rūḍhi:** The names have no specific meaning but are used traditionally in certain areas, e.g. Ātarūsaka.
- B. **Prabhāva:** The names are assigned on the basis of their peculiar inherent properties, e.g. Kṛmighna.
- C. Deśa: The names are assigned according to the place of availability/local names, e.g. Māgadhī.
- D. Lānchana: The names are assigned on the basis of the special morphological characters, e.g. Citratandula (Vidanga).
- E. Upamā: The names are assigned as per the similarity of useful part to other familiar objects or animals etc., e.g. Pancāngula (Eranda).
- F. Vīrya: The names are assigned as per the potency of the herbs, e.g. Ūṣaṇa (Śuṇṭhī).
- G. Itarāhvaya: The names are assigned as the names prevalent in other regions or based on other factors, e.g. Indrayaya.

He also classified herbs on the basis of karma or guṇasādharmya into 23 Varga. Out of these 23 Varga he allotted 10 Varga for 780 vegetable drugs excluding 74 dravya of Suvarṇādi-varga.

Other Ayurvedic Scripts

Classification of Plants given in Manusmrti (600 BC): [9,10,11]

Manu classified the plants into eight groups as

- A. **Auṣadhi:** Plants bearing abundant flowers and fruits which withers after fruiting, e.g. Rice, Wheat, etc.
- B. **Vanaspati:** Plants bearing fruits without apparent flowers, e.g. Ficus.
- Vṛṣṣa: Plants bearing apparent flowers and fruits both, e.g. Mango.
- D. Guccha: Bushy herbs, e.g. Jasmine.
- E. **Tṛṇa:** All types of grasses, e.g. Dūrvā.
- F. Gulma: Shrubs, e.g. Atibalā.
- G. Pratāna: Lianes, e.g. Māljhana.
- H. Vallī: Twinner or such plants which need a support, e.g. Guḍūcī.

Classification of Plants given in $Vrks\bar{a}yurveda$ (1st Century BC or AD) [9-11]

The great scholar, Pāraśara compiled a book entitled Vṛkṣāyurveda (The science of medicinal plants). In his book, he describes 14 types of forests, morphology and anatomy of plants along with a system of classification of plants. According to Majumdar (1946), the system of comparative morphology of plants described in this text was more advance than any other classification method established in western countries prior to 18th century. In this system, plants are classified into Gana, Vibhaga or families. Some of the common families are Śamīgaṇīya, Swastikagaṇīya, Trapuṣagaṇīya, Kūrcapuṣpagaṇīya, and Mallikāgaṇīya which are now known as Fabaceae, Brasicaceae, Cucurbitaceae, Asteraceae and Apocynaceae respectively.

A. Few example of assigning names compiled from different Ayurvedic Scripts: [12-25]

Table 1: Names assigned according to Prabhāva (Effect)

Sr.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Ajaśṛṅgī	Cakṣuya	Beneficial effects on eyes	Gymnema sylvestre (Retz.) R.Br. ex Sm.
2.	Arka	Kuṣṭhāri	Cures Skin disorders	Calotropis gigantea (L.) Dryand
3.	Amlavetasa	Gulmaketu	Cures Gulma	Garcinia pedunculata Roxb.
4.	Āmalakī	Vayasthā	Rejuvenator	Phyllanthus emblica Gaertn.

B. Names assigned according to Swarūpa (Habit):

Table 2: Basonyms, synonyms, Probable reason of coining basonyms / synonyms and botanical identities of few examples of plants whose names were assigned according to Swaroop (Habit)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Nāgabalā	Prasāriņī	Creeper in nature	Sida veronicaefolia Lam.
2.	Jaṭāmāṅsī		Rhizome is covered with fibers like blackish grey matted hairs	Nardostachys jatamansi (D.Don) DC.
3.	Kumkum	Keśara	Its stigma is known as Kesar	Crocus sativus L.
4.	Vańśa	Trṇarāja	Largest grass	Bambusa bambos (L.) Voss

C. Names assigned according to Avyava (External feature/ Morphological Characters): On basis of leaves (Patra):

Table 3: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of leaves (Patra)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Cāṅgerī	Tripādī	Arrangement of three leaves or trifoliate leaves	Oxalis corniculata L.
2.	Śitivāra	Catușpatrī	Arrangement of four leaves or leaves quadrifid	Marsilea minuta L.
3.	Eraṇḍa	Dīrghavṛnta	Leaves with long petiole	Ricinus communis L.
4.	Bheṇḍā	Karaparņikā	Palmate shape of leaves	Abelmoschus esculentus L.

On basis of flower (Puspa)

Table 4: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of flower (Puspa)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Śatapuṣpā	Śatapuṣpā	Many flowers in a floret	Anethum graveolens L.
2.	Campaka	Śwetacampā	White colour flowers	Plumeria alba L.
3.	Campaka	Raktacampā	Red colour flowers	Plumeria rubra L.
4.	Kşīrakākolī	Kāverī	Due to variegated flowers	Lilium polyphyllum D.Don.

On basis of Fruit (Phala):

Table 5: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of fruit (Phala)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Meşarngī	Meşarngī	Due to Aries horns like shape of fruits	Gymnema sylvestre (Retz.) R.Br. ex Sm.
2.	Āvartanī	Āvartanī	Due to Aries screw like shape of fruits	Helicteres isora L.
3.	Kolaśimbī	Prathuśimbī	Due to long and flattened pod	Canavalia gladiata (L.) D.C. Bean
4.	Ālābū	Ālābū	Fruits either lies on the ground or onto its canopy	Lagenaria siceraria (Molina) Standl.

On basis of Seeds (Bīja):

Table 6: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of seeds (Bīja)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Kuṭaja	Indrayava	Fruits have barley shaped seeds	Holarrhena antidysentrica (L.) Wall.
2.	Kṛṣṇabīja	Kṛṣṇabīja	Black coloured seeds	Ipomoea nil (L.) Roth

On basis of Stem (Kāṇḍa)

Table 7: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of stem (Kanda)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1	Guḍūcī	Cakrāṅgī	Due to succulent, cork or grooved stem or it climbs on a tree like a swirl	Tinospora sinensis (Lour.) Merr.
2	Niśotha	Trivṛta	Triangular and three winged stem	Operculina turpethum (L.) Silva Manso

On basis of Root (Mūla)

Table 8: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of root (Moola)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Śatāvarī	Śatamūlī	Numerous succulent tuberous roots	Asparagus racemosus Willd.
2.	Dantī	Dantī	Roots are like elephant's tusk	Baliospermum montanum (Willd.) Müll. Arg

On basis of Latex (Ākṣīra)

Table 9: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of latex (ksheer)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Kşīrakākolī	Payasyā	White color latex	Lilium polyphyllum D.Don
2.	Coka	Swarņakşīrī	Golden yellow color latex	Euphorbia thomsoniana Boiss.

On basis of Glands (Granthi)

Table 10: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of glands (Granthi)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Vaca	Şaḍagandhā	Rhizome has many nodes	Acorus calamus L.
2.	Granthiparṇī	Gaṭhiwana	Due to verticillaster inflorescence or sepals in axillary globose head	Leonotis nepetifolia (L.) R.Br.

On basis of Spines or Thorns (Kantaka):

Table 11: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of thorns or spines (Kantak)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Gokșura	Trikaņţaka	Fruits are armed with spines which injures the feet of grazing cattle's	Tribulus terrestris L.
2.	Babūla	Tīkṣṇaśāka	Due to sharp spine	Acacia nilotica (L.) Delile

On basis of Sap (Sāra):

Table 12: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of Sap (Saara)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Rakta-candana	Raktasāra	Dark red cooler of heartwood	Pterocarpus santalinus L. f.

On basis of Bark (Chāla)

Table 13: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of bark (Chala)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Priyāla	Sthūlavalkala	Due to thick stem bark	Buchanania cochinchinensis (Lour.) M.R.Almeida

On basis of Hairs (Roma)

Table 14: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of hairs (Roma)

I	S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
Ī	1.	Kapikachhu	Kapiromaphalā	legumes are covered with stiff hairs like those of monkey	Mucuna pruriens (L) DC.

D. Names assigned according to Guṇa (Properties): On basis of Sound (Śabda):

Table 15: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of sound (Shabda)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Gunjā		Rattling sounds from ripened fruits	Abrus precatorius L.
2.	Śaṇapuṣpī	Ghaṇṭāravā	Rattling sounds from ripened fruits	Crotalaria juncea L.

On basis of Touch (Sparsa)

Table 16: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of touch (Spasra)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Dhanvyāsa	Duḥsparśā	Presence of spines near leaves	Fagonia arabica L.
2.	Apāmārga	Kharmanjarī	Flower bears spinous bracteoles and pointed perianth	Achyranthes aspera L.

On basis of External Appearances (Rūpa)

Table 17: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of external Appearances (Roopa)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Manjişţhā	Raktayaşţikā	Red colored stem and root	Rubia cordifolia L.
2.	Manjişthā	Yojanvallī	Climber spreading extensively	Rubia cordifolia L.
3.	Catraka		Due to umbrella shape pileus	Agaricus campestris L.

On basis of Taste (Rasa):

Table 18: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of taste (Rasa)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Kaṭukā	Tikta	Rhizome is bitter in taste	Picrorhiza kurroa Royle ex Benth.
2.	Mūrvā	Madhura	Root is sweet in taste	Marsdenia tenesisima Steud.
3.	Amlikā	Amlapatrī	Leaves are sour in taste	Tamarindus indica L.

On basis of Smell (Gandha)

Table 19: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of smell (Gandha)

	S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
ſ	1.	Ādāri	Viţakhadira	Foul smell in root	Acacia polyacantha Willd.

On basis of Potency (Vīrya)

Table 20: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of potency (Veerya)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Marica	Ūṣṇa	Hot potency of fruits	Piper nigrum L.

Names assigned according to action (Karma)

Table 21: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of karma (Action)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Rāsnā	Vātāri	Alleviates diseases caused due to vāta doṣa	Pluchea lanceolata (DC.) C. B. Clarke
2.	Endrī	Medhya	Promotes intellect	Bacopa monnieri (L.) Wettst.
3.	Viḍaṅga	Kṛmghna	Steadfast remedy for worms	Embelia ribes Burm. f.

Names assigned according to habitat (Udbhava)

Table 22: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of udbhava (Habitat)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Guḍūcī	Kāṇḍaruhā	Regenerates from stem	Tinospora sinensis (Lour.) Merr.
2.	Pāṣāṇabheda	Parṇabīja	Regenerates from leaf	Bryophyllum pinnatum (Lam.) Kurz.
3.	Vāndā	Vṛkṣādinī	Hemiparasitic in nature	Dendrophthoe falcata (L.f.) Ettingsh.

Names assigned according to daily life use (Lokopyoga)

Table 23: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of lokopyoga (Daily life use)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Aśwattha	Yāgika	wood is used in sacrifices	Ficus religiosa L.
2.	Tiniśa	Rathdruma	heartwood is stony and is used for making different parts of chariot, cart etc.	Ougeinia oojeinensis (Roxb.) Hochr.
3.	Vikankata	Sruvāvṛkṣa	wood is used in sacrifices	Flacourtia indica (Burm. f.) Merr.

Names assigned according to mystery (Ākhyāna)

Table 24: Basonyms, synonyms, Probable reason of coining basonyms / synonyms and botanical identities of few examples of plants whose names were assigned on the basis of aakhyan (Mystery)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Guḍūcī	Amṛtsambhava	Acc. To Āyurveda it is originated from nectar	Tinospora sinensis (Lour.) Merr.
2.	Rudrākṣa	Rathdruma	Acc. To Hindu legend it is originated from tears of Lord Shiva	Elaeocarpus ganitrus Roxb.

E. Names assigned according to Historical Importance (Itihāsaprasiddhi)

Table 25: Basonyms, synonyms, Probable reason of coining basonyms / synonyms and botanical identities of few examples of plants whose names were assigned on the basis of Itihasprassiddhi (Historical Importance)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Pippala	Aśwattha	In ancient time, horses used to rest under this tree	Ficus religiosa L.
2.	Bodhivrkşa	Rathdruma	Gautama attained enlightenment under this tree	Ficus banahaensis Elmer.

F. Names assigned according to marketing value (Vyāpārika importance)

Table 26: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of Vyaparik importance (Marketing Value)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Hingu	Vālhīka	Imported from valhika desha	Ferula narthex Boiss.
2.	Marica	Dharmapattan	Imported from eastern Malay coast	Piper nigrum L.

G. Names assigned according to place of origin (Deśa)

Table 27: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of Desha (place of origin)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Pippalī	Māgdhī	Plant grows mostly in damp regions of Magadha	Piper longum L.
2.	Marica	Kalinga	plant grows abundantly in Kalinga desha i.e. Orissa	Holarrhena antidysenterica (L.) Wall.

H. Names assigned according to flowering and fruiting season (Kāla)

Table 28: Basonyms, synonyms, Probable reason of coining basonyms/ synonyms and botanical identities of few examples of plants whose names were assigned on the basis of kala (Flowering and Fruiting season)

S. No.	Basonyms	Synonyms	Probable reason of coining basonyms/ synonyms	Botanical Identities
1.	Kşīrakākolī	Śrāvaṇī	It blooms in Śrāvaṇa (August) Month	Lilium polyphyllum D. Don

Discussion

Without a shred of doubt, the tactics of nomenclature has undergone tremendous changes from time to time as per the needs. In ancient times, when everyone was in close contact to nature and surroundings, the ancient seers did not felt the need of morphological description of plants and hence they coined Basonyms and synonyms on various basis so that there is no confusion in identifying and using the available dravyas at individual levels. With the advancement of time, the curiosity led the scholars to explore more and more number of plants of which were extremely different from one another either in therapeutic activities or morphology. Also with the urbanization, a gap between the mankind and nature got created leading to a great loss of treasure some traditional knowledge. Thus, a need of morphological

description of plants aroused and the emphasis swapped more towards taxonomic aspects from medical aspects.

Conclusion

Wearing the shoes of taxonomic aspects of nomenclature along with the torch of synonyms coined by ancient seers one may be able to preserve the treasury traditional medicinal knowledge. Also, this may prove to be an effective manner in terms of manpower, time and cost to bridge the gap of knowledge in the field of drug development.

Reference

 Indian scriptures. The Science of Life in the vedic age, 2017. Retrieved from

- http://www.indianscriptures.com/vedic-knowledge/contribution-to-the-world/biology/the-science-of-life-in-the-vedic-age
- Wikipedia. Middle Ages, 2017. Retrieved from https://en.wikipedia.org/wiki/Middle Ages
- Bsm-Ancientbharat. POST-VEDIC CLASSICAL PERIOD - Botany: Part3, 2016 Retrieved from http://www.bsm-ancientbharat.in/index.php/item/290post-vedic-classical-period-botany-part3
- Wikipedia. Flora of the Indian epic period, 2017. Retrieved from https://en.wikipedia.org/wiki/Flora_of_the_Indian_epic_ _period
- 5. Shastri K. Caraka Samhita. Reprinted Edition. Varanasi (India): Chaukhambha Sanskrit Sansthan, 2012.
- Sharma AR. Susruta Samhita First Edition. Varanasi (India): Chaukhambha Surbharati Prakashan. 2001, I-III.
- Sharma PV, Sharma GP. Dhanvantari-Nighantu. Varanasi (India): Chaukhambha Orientalia, 2008.
- 8. Tripathi I. Rajanighantu. Fifth Edition. Varanasi (India): Chaukhambha Krishnadas Academy, 2010.
- 9. Ibiblio. (n.d.). Chapter 4-Food and Art in the Vedic age. Retrieved from https://www.ibiblio.org/britishraj/Jackson1/chapter04.ht ml
- Indianetzone. Traditional Indian Medicine in Vedas. 2008. Retrieved from http://www.indianetzone.com/64/traditional_indian_me dicine_during_vedic_period.htm
- Importantindia. Vedic Agriculture in Ancient India, 2016. Retrieved from http://www.importantindia.com/15407/vedicagriculture-in-ancient-india/
- Kamat SD. Sarasvat¶ Nigha¤n¤tu¤h. First Edition. Delhi (India): Chaukhambha Sanskrit Pratishthan, 2006.
- 13. Chunekar KC, Pandey GS. BhμavaprakμaÜa Nigha¤n¤tu. Varanasi (India): Chaukhambha Bharati Academy Publishers & Distributors, 2010.
- Sharma, Priya Vrat, Sharma, Guru Prasad. Dhanvantari-Nigha¤n¤tu¤h. Varanasi (India): Chaukhambha Orientalia, 2008.
- Tripathi, Indradev. Rajµanigha¤n¤tu. Fifth Edition. Varanasi (India): Chaukhambha Krishnadas Academy, 2010.
- Vaiya, Saligram. ݵaligrama-Nigha¤n¤tubhµu¦Äam. Mumbai (India): Khemraj Shrikrishnadass Prakashan, 2007.
- 17. Sharma, Priya Vrat, Sharma, Guru Prasad. Kaiyadeva-Nigha¤n¤tu¤h. Second Edition. Varanasi (India): Chaukhambha Orientalia, 2006.
- Pandey, Gyanendra. Madanpal Nighantuh. First Edition. Varanasi (India): Chaukhambha Orientalia, 2012.
- Pandey, Gyanendra. So¤dhala Nigha¤n¤tu¤h. First Edition. Varanasi (India): Chaukhambha Krishnadas Academy, 2009.
- Pandey, Gyanendra. System of Plant Nomenclature in yurveda. First Edition. Varanasi (India): Chaukhambha Publishers, 1997.
- 21. Singh, Thakur Balwant. Glossary of Vegetable Drugs in

- B¤rhattra. Second Edition. Varanasi (India): Chaukhambha Amarabharati Prakashan, 1999.
- 22. Sharma SK. Medicinal Plants Used in yurveda. New Delhi (India): Rμα|¢riya yurveda Vidyap¶tha (National Academy of yurveda) (An autonomous organisation under Ministry of Health & Family Welfare, Govt. of India), 1998.
- 23. Nisteshwar K. Dravyaguna. First Edition. Varanasi (India): Chaukhambha Surbharti Prakashan, 2007.
- 24. Singh, Amritpal. Glossary of Medicinal Plants Used in yurveda. Jodhpur (India): Pawan Kumar Sharma Scientific Publisher, 2006.
- Sharma PV. NµamarµupajÛµanam. Varanasi (India): Chaukhambha Visvabharti Oriental Publishers & Distributors, 2011.