



Nighantus (Materia Medicas) of Ayurveda – A Chronological Review

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Ayurveda, one of the oldest flourishing systems of health care uses substances of natural sources to improve the health condition. Due to apparent lack of uniform nomenclature system and communication gap among authors of various geo-cultural background, correct determination of the substances occurring in the formulation in the present context has become a huge challenge. The nighantus, Ayurvedic form of Materia Medica could help significantly in this direction. Numerous nighantus have been written from the very beginning of Ayurvedic period to solve the clandestine meanings of cryptic names of medicinal plants. The present work aims to compile the various nighantus that have been created over the period of time and are now available in various forms – published completely or partially, as manuscripts or just as evidence - in a chronological order. This will appraise the global population regarding the rich literature and offer new vistas to the scholars involved in natural products research.

Key words – Nighantu, Ayurvedic Materia Medica, Medicinal Plants

Introduction

Ayurveda, the hindu system of healthcare has documented history since 2nd century B.C., evident from the fact the period of *Charak Samhita* – a treatise on Ayurveda whose period is determined to be 200 B.C.[1] Ayurveda aims to offer a better and longer life by following its guidelines and rational use of substances of natural origin – herbal, animal, mineral, marine,[2] mainly of herbal origin. These substances were mentioned in the Vedas, of which Ayurveda is a branch.[3] There is evidence of attempt to classification of the medicinal herbs as per their morphology and medicinal values in the Vedas.[4] Over the period of time, the nomenclature and classification of the medicinal herbs evolved.

These substances were named in Sanskrit signifying an attribute of the substance like morphology, place of origin, major therapeutic application, etc.[5] This method of nomenclature resulted in assigning of multiple names to a single substance. Further, since many substances have common attributes, many substances also acquired a same name. Apparently, due to lack of a uniform identification system and different geo-cultural background of the authors, often the correct and unambiguous determination of the substances mentioned in the formulations has remained a challenge. During those days, to solve this problem a distinct category of literature was developed in which the substances used for therapeutics were described in an objective to throw light on their identification. These texts were named as *nighantu*.[6]

Nighantus are glossary like texts that comprise of information regarding the substances used in therapeutics, with a primary objective to help in determination of correct substance mentioned in therapeutic texts.[7] Like any other literature, *nighantus* have also witnessed evolution over the period of time, acquiring different styles in different eras. The *nighantus* of the initial period contained verses having the basonym – the primary name and all the available synonyms of the substances, like a glossary. The sanskrit term *nighantu* also means the collection of single meaning words in order to resolve the cryptic meaning of the terms. Further down the time, *nighantus* started mentioning pharmacological profile and therapeutic applications of the substance in addition to the synonyms.[8]

As on date evidences are available for existence of fifty seven *nighantus*,[9] written during different times. This article aims to sensitize the global scientific fraternity regarding the rich, multifaceted and evolving knowledge of materia medica of the Ayurvedic scholars.

The knowledge of the *Nighantu* literature is of significance in the current era because

It helps in determining the correct identity of the therapeutic substance in the current context.

It throws light on possible therapeutic application of the substance.

It shows the evolution of flora, fauna with time with relation to their medicinal use reflecting the incidence pattern of diseases and approach to their management.

Current Status of the *Nighantu* Literature

A huge amount of work has been done by India to retrieve the legacy of *nighantu* literature by bringing forth these into printed form from the scattered manuscripts. This is a herculean task considering the partial availability of manuscripts and multiple manuscripts of one text with variations. In the last one century many *nighantus* have been published, but still many *nighantus* remains unavailable.

The History of Ayurveda is divided into 4 phases according to the importance of the type of literature prevalent during the period [10]

Vedic Time

Samhita Period

Samgraha period

Nighantu Period

History of Ayurvedic Materia Medica during Vedic Period

The *Vedas* are the earliest documented source of hindu literature and these also contained many medicinal plants for prevailing clinical conditions. The *Vedas* also contained guidelines of life style in form of hymns. These *Vedas* were appended with *nighantus* to derive the meaning of cryptic words.[11]

History of Ayurvedic Materia Medica during Samhita Period

The *Samhita* period witnessed the emergence of scientific discussions based on philosophic ideas and formulation of rational theories of substance and their pharmacological activities. Many *samhitas* were written but very few are available now, out of these three epic treatises, *Charaka Samhita* of *Agnivesha*, *Sushruta Samhita* of *Sushruta* and *Ashtanga Hridaya* of *Vagbhatta* are the most important. These are exhaustive treatises addressing anatomical, physiological, pathological, pharmacological, clinical and therapeutic aspects. These texts occasionally have gone into identification aspects of the therapeutic substances through the synonyms, but not adequately enough to enable correct determination of all therapeutic substances. Evidences are available that these treatises were appended by *nighantus*, which dealt with determination of the substances used in the treatise.[12]

Nighantus of Samhita Period [Table -1]

Sl No	Name of the <i>Nighantu</i>	Author	Period	Style	Published	No of Groups
1	<i>Vedic Nighantu</i> [13]	Commentary by <i>Yask</i>	-	Synonym	-	6
2	<i>Sauśruta Nighantu</i> [14]	<i>Nāgārjuna</i>	5 th century A.D.	Synonym	Yes	37
3	<i>Rasa Vaisheshika Darshana</i> [15]	<i>Nāgārjuna</i>	5 th century A.D.	Fundamental theories of Ayurveda	-	-

History of Ayurvedic Materia Medica during Nighantu Period

As the name of this period suggests, this is the golden period of the Ayurvedic Materia Medica literature. Many *nighantus* were written during this period and this period saw the evolution of *nighantus* from glossary form to materia medica form with introduction of pharmacological properties and therapeutic effects of the substances along with the existing style of compiling the synonyms. The period also paved the way for the beginning of controversies as unlike *Samhitas* which by and large used a synonym only for a single plant, the *nighantus* used a single synonym for various plants and also there were serious

typographical errors. Still, these *nighantus*, when used with an analytical approach offer a lot for correct determination of the substances and also throws light on the then prevalent flora and fauna.

Nighantus of Nighantu Period [Table -2]

SI No	Name of the <i>Nighantu</i>	Author	Period	Style	Published	No of Groups of plants / total no of substances
1	<i>Ashtanga Nighantu</i> [16]	<i>Vahatacharya</i>	8 th century A.D.	Synonym	Yes	26 groups
2	<i>Paryaya ratnamala</i> [17]	<i>Indukarasuta Madhava</i>	9 th century A.D.	Synonym	Yes	-
3	<i>Siddhasara/ Sarottara Nighantu</i> [18]	<i>Ravigupta</i>	9 th century A.D.	Synonym	Yes	31 topics / 197 substances
4	<i>Harmekhala Nighantu</i> [19]	<i>Mahuka</i>	10 th century A.D.	Prose form	-	-
5	<i>Chamatkar Nighnatu</i> [20]	<i>Rangacharya</i>	10 th century A.D.	Synonym	Yes	14 verses/ 225 substances
6	<i>Madanadi / Chandranandan Nighantu</i> [21]	<i>Chandranandan</i>	10 th century A.D.	Synonym	Yes	32 groups
7	<i>Dravyagunaakar</i> [22]	<i>King Bhoja</i>	11 th century A.D.	Synonym	Yes	28 groups
8	<i>Dravyaguna Samgrah</i> [23]	<i>Chakrapani Dutta</i>	11 th century A.D.	Synonym-properties	Yes	15 groups
9	<i>Dhanwantari Nighantu</i> [24]	<i>Dhanwantari</i>	11 th century A.D.	Synonym-properties	Yes	7 groups, 373 substances
10	<i>Indu Nighantu</i> [25]	<i>Indu</i>	11 th century A.D.	-	-	-
11	<i>Nimi Nighantu</i> [26]	<i>Nimi</i>	11 th century A.D.	-	-	-
12	<i>Arundutta Nighantu</i> [27]	<i>Arundutta</i>	11 th century A.D.	Name properties	-	-
13	<i>Shabda Chandrika</i> [28]	<i>Chakradatta</i>	11 th century A.D.	Synonym	Yes	9 groups
14	<i>Vashpachandra</i>	<i>Vashpachandra</i>	12 th	-	-	

	<i>Nighanṭu [29]</i>		century A.D.			
15	<i>Anekartha Kosha [30]</i>	<i>Manaka</i>	12 th century A.D.	Glossary of medical & nonmedical terms	-	
16	<i>Nighanṭu Shesha [31]</i>	<i>Hemachandra</i>	12 th century A.D.	Synonym- description	Yes	6 groups
17	<i>Sodhala Nighanṭu [32]</i>	<i>Sodhala</i>	12 th century A.D.	properties	Yes	26 groups
18	<i>Madhava Dravyaguna [33]</i>	<i>Madhava</i>	1250 A.D.	-	Yes	29 Verga
19	<i>Abhidhan Ratnamala / Sadrasa Nighanṭu [34]</i>	<i>Chatura Rasika</i>	13 th Century A.D.	Synonyms	Yes	6 groups
20	<i>Siddhamantra & Prakash (Bopadeva) [35]</i>	<i>Vaidya Acharya Keshava</i>	13 th century A.D.	properties	Yes	8 groups
21	<i>Hridaya Deepak Nighanṭu [36]</i>	<i>Vopadeva</i>	13 th century A.D.	Synonym	Yes	8 groups
22	<i>Shatashloki [37]</i>	<i>Vopadeva</i>	13 th century A.D.	Synonym	-	13 groups
23	<i>Madanpala Nighnatu [38]</i>	<i>Madanapala</i>	1374 A.D.	Synonym- pharmacological action- therapeutic uses	Yes	13 groups
24	<i>Ayurveda Mahodadhi / Sushena Vaidyaka [39]</i>	<i>Sushena</i>	14 th Century A.D.	Annapanavidhi	-	-
25	<i>Raja Nighanṭu [40]</i>	<i>Narahari Pandit</i>	14 th Century A.D.	Synonym	Yes	16 groups
26	<i>Guna Samgraha [41]</i>	<i>Trimalla</i>	14 th Century A.D.	-	-	-
27	<i>Kaiyadeva Nighanṭu / Pathyapathya Vibodhaka [42]</i>	<i>Kaiyadev</i>	1425 A.D.	<i>Pathyaapathya</i>	Yes	9 groups

History of Ayurvedic Materia Medica during Modern Period

Continuing the trend of evolution, the *nighantus* of the modern period started incorporating the new substances that came into Ayurvedic practice under the influence of changing socio-political order like Mughal, Portugese, and British invasion.

Nighnatu of Modern Period [Table -3]

Sl No	Name of the Nighanṭu	Author	Period	Style	Published	No of Groups
1	<i>Bhavaprakasha Nighanṭu [43]</i>	<i>Bhava Mishra</i>	16 th Century A.D.	Synonym & Properties	Yes	22 groups
2	<i>Dhananjaya Nighanṭu [44]</i>	Anonymous	16 th Century A.D.			
3	<i>Saraswati Nighanṭu [45]</i>	Anonymous	16 th Century A.D.			
4	<i>Ayurveda Saukhyam [46]</i>	<i>Todarananda</i>	16 th Century A.D.	Rasa,guna veerya	Yes	23 groups
5	<i>ShivaKosha with Shiva Prakasha Commentary [47]</i>	<i>Shivadatta Mishra</i>	1677 A.D.	Name of plants,trees, Herbs on their source season	Yes	-
6	<i>Vaidya Vatamsa [48]</i>	<i>Lolimbaraja</i>	17 th Century A.D.	Description	Yes	7 groups
7	<i>Kalpadru Kosha [49]</i>	<i>Keshava</i>	17 th Century A.D.	Synonym	-	3 groups
8	<i>Dravyaguna Shataka [50]</i>	<i>Trimallabhata</i>	17 th Century A.D.	Properties & uses of ahardravya	Yes	15 groups
9	<i>Chudamani Nighanṭu [51]</i>	<i>Surya</i>	17 th Century A.D.	Synonym	Yes	7 groups
10	<i>Rajaballava Nighanṭu [52]</i>	<i>Raja Ballava</i>	18 th Century A.D.	-	Yes	6 groups
11	<i>Nighanṭu Ratnakar [53]</i>	<i>Vishnu Vasudev Godbole</i>	18 th Century A.D.	Description of dravya & Diagnosis of diseases	Yes	2 Khand
12	<i>Dravya Ratnavali [54]</i>	Anonymous	18 th Century A.D.	-	-	-
13	<i>Laghu Nighanṭu [55]</i>	<i>Vyasakeshavaram</i>	18 th Century A.D.	Synonym	Yes	-
14	<i>Nighanṭu Samgraha [56]</i>	<i>Katobhatta</i>	1893 A.D.	Name of dravya in ten language	Yes	-
15	<i>Shaligrama</i>	<i>Lala Shaligrama</i>	19 th	Dravya &	Yes	26

	<i>Nighanṭu [57]</i>		Century A.D.	patients relation on basis of horoscope		groups
16	<i>Vanaspati Shastra [58]</i>	<i>Jayakrishna Indrajit Thakur</i>	19 th Century A.D.	Family characters	Yes	-
17	<i>Vanaushadhi Darpana [59]</i>	<i>Biraj Chandra Gupta</i>	19 th Century A.D.	Fundamentals of dravyaguna	Yes	2 groups (vol)
18	<i>Vanaushadhi Gunaadarsha [60]</i>	<i>Shankarjee Phade</i>	19 th Century A.D.			
19	<i>Haritakyadi Nighanṭu [61]</i>	<i>Pt. Shiva Sharma</i>	19 th Century A.D.	Synonym & properties	Yes	24 groups
20	<i>Nighanṭu Adarsha [62]</i>	<i>Bapalal Vaidya</i>	1928 A.D.	Nirukti & properties of individual dravya	Yes	126 groups
21	<i>Rupa Nighanṭu [63]</i>	<i>Rupalal Vaishya</i>	1934 A.D.	Description of plants with photographs	Yes	-
22	<i>Shankar Nighanṭu [64]</i>	<i>Shankar Datta Gauda</i>	1934 A.D.	Name in different language Properties,uses & dosage	Yes	3 parts
23	<i>Ayurveda Chintamani [65]</i>	<i>Baladeva Prasad Mishra</i>	1937 A.D.	-	-	-
24	<i>Vanaushadhi Chandrodaya [66]</i>	<i>Chandra raj Bhandari</i>	1938 A.D.	Chemical constituent	Yes	10 volumes
25	<i>Abhinav Nighanṭu [67]</i>	<i>Dattaram Chaube</i>	19 th Century A.D.	Synonym & photographs of dravya	-	-
26	<i>Mahaushadhi Nighanṭu [68]</i>	<i>Pt. Aryadash Kumarasingha</i>	1971 A.D.	Properties & uses	Yes	7 groups
27	<i>Priya Nighanṭu [69]</i>	<i>Priyavrat Sharma</i>	1983 A.D.	Synonym	Yes	13 groups
28	<i>Dravyaguna Kosha [70]</i>	<i>Priyavrat Sharma</i>	1997 A.D.	Properties & actions	Yes	
29	<i>Bedi vanaspati Kosha [71]</i>	<i>Ramesh Bedi</i>	1997 A.D.	Photos	Yes	6 volumes

Discussion

The indexing of the *nighantus* reveals that there were persistent endeavours to solve the problems pertaining to the correct determination of a substance occurring in a particular formulation. The *nighantus* generally were coined using a therapeutic text. Authors used the prevailing and popular texts of their time and region as basis to write *nighantus*. This explains the emergence of more than one *nighantu* during one period.

Further, two different *nighantus* are seen to have groups with same name but have kept different substances under them. This has happened due to the different rationale used in grouping of the substances. This offers a tremendous scope for research in order to explore the therapeutic application of a substance in different regions and era.

Conclusion

The above presents a summary of various texts regarding the materia medica of Ayurveda. Each of these texts has its own history, idiosyncrasies and controversies offering avenues for research not only from literary angle but also as solution to the contemporary health problems from the cryptic descriptions of the *nighantus*.

References

1. Prof.P.V.Sharma,Ayurveda ka vaigyanika itihās,7th edition,2003,pp-119.
2. Agnivesh; Caraka Samhita, Ayurveda Depika Commentry by *Cakrapanidutta*, Ed. Pt. Y.T. Acharya, Rastriya Sanskrit Samsasthan , Reprint 2006; Verse No. su.11/55.
3. Prof.P.V.Sharma,Ayurveda ka vaigyanika itihās,7th edition,2003,pp-118.
4. Prof.P.V.Sharma,Ayurveda ka vaigyanika itihās,7th edition,2003,pp-121.
5. Pandit Narahari,Rajnighantu,DravyagunaprakashikaHindi Commentory by Dr.Indradeva Tripathi,Publisher Chaukhamba Krishnadas Academy,Reprint-2006,Page No.4.
6. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.11
7. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.12.
8. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.14
9. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.16
10. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.23
11. Prof.P.V.Sharma,Ayurveda ka vaigyanika itihās,7th edition,2003,pp-133
12. Susruta,Sausruta Nighantu by Dr. Sharma suvedi & Dr.Narendranath Tiwari ,Publisher Mahendra Sanskrit Vishwavidyalaya,Belzundi,Dadha.
13. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.20.
14. Nagarjuna,sausruta nighantu,published by Mahendra Samakrta Visvavidyalaya Belajhundi,Print-1999.
15. Dr.Shanthkumar Lucas, An introduction to Nighantu of Ayurveda, edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006, pp.31.
16. Vahatacarya,Astanga Nighantu by prof.P.V.Sharma,publisher Kuppuswamy sastri Research institute Madras,Print-1973.
17. Madhava,Paryayatnamala by Tarapada Chowdhury,publisher Patna University Journal,Vol,2 patna,reprint-1946.
18. Ravigupta,Siddhasara/Sarottara Nighantu,byMr.R.E.Emmerick,publisherFranz Steiner Verlag GMBH Wiesbaden,Germany,Print-1980.
19. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-60.
20. Rangaacarya,Chamatkara Nighantu,Vaidya Ram Manohar,publisher Aroor Ravi Memorial Ayurvedic Research Centre,Koppa,print-1999.
21. Candranandan,Madanadi Nighantu,byAsta Vaidya Vayaskara N.S.Mooss,publisher Vaidyasarthy press ,Kottayam,Print-1985.
22. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-76.
23. Chakrapanidutta,Dravyaguna Sangraha with commentary of dravyagunasangraha Tika by Shivadasa sen,Publisher Chaukhambha orientalia,Varanasi,Print-1998.
24. Dhanwantari,Dhanwantari Nighantu by Prof.PV.Sharma ,publisher Chaukhambha Orientalia,Varanasi,reprint-1989..

25. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-89.
26. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-10.
27. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-89.
28. Cakrapanidutta,Sabdachandrika by Prof.P.V.Sharma,Publisher indian institute of History of Medicine,Osmania medical college Hyderabad,print-1989.
29. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-10.
30. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-97.
31. Hemachandra,Nighantu Sesa with commentary by Sri Vacanacarya Vallabhagani.
32. Shodhala,Nighantu of Shodhala by Prof.P.V.Sharma publisher Chaukhambha Vidyabhawan,Varanasi,Reprint-1972.
33. Madhava,MadhavaDravyaguna/Bhavaswabhavavada,byProf.P.V.Sharma,publisher,chaukhambha Vaidyabhawan Varanasi,print-1973.
34. Abhidhanaratnamala/sadarasanighantu by Prof.P.V.Sharma,publisher,Chaukhambha orientalia,Varanasi,print-1977.
35. Vaidyacarya Kesava, Siddhamantra with PRAKASA commentary of Vopadeva By Prof.P.V.Sharma,Publisher chaukhambha Amarabharati prakashan,Varanasi,Print-1977.
36. Vaidyacarya Bopadeva,Hridayadipaka Nighantu with PRAKASA commentary of Vopadeva By Prof.P.V.Sharma,Publisher chaukhambha Amarabharati prakashan,Varanasi,Print-1977.
37. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-137.
38. Madanpal,Madanpal Nighantu with 'Tatvaprakashini' Hindi commentary on vaidya panchanan,Publisher Khemaraj Shrikrishnadas prakashan,Bombay,print-1998.
39. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-144.
40. Pandit Narahari,Rajnighantu,DravyagunaprakashikaHindi Commentary by Dr.Indradeva Tripathi,Publisher Chaukhamba Krishnadas Academy,Reprint-2006
41. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-150.
42. Kaiyadeva,Kaiyadeva Nighantu/pathyapathya vibodhaka,by Prof.P.V.Sharma,publisher Chaukhambha orientalia,Varanasi,Print-1979.
43. Bhavamishra,Haritakyadi Nighantu with Shivaprakashika Hindi commentary by Shivasharmavaidya shastri,Publisher Khemaraj,Shrikrushnadas Prpperties,Bombay ,Print-2000.
44. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-12.
45. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-12.
46. Todaramallah,Ayurvedasaukhyam/Todarananda byDr.Bhagawan Dash &Dr.Lalitesh Kashyap,publisher Concept publishing company,new Delhi,Reprint-1989.
47. Shivadatta Misra,Sivakosa by R.G.Harshe,publisher Samarth Bharat press,Pune
48. Lolimbaraj,Vaidyavatamsa with Hindi Commentary by Brahmanand Tripathi,publisher Chaukhambha Orientalis,Varanasi,print-1977.
49. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-182.
50. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-182.
51. Surya, Chudamani Nighantu published by Dr.B.Rama Rao,Indian Journal of History Sciences,print-2003.
52. Rajavallabha,Rajavallabha Nighantu published by Srivenkateshwara Steam press,Bombay,print-1833.
53. Vishnu Vasudeva Godabole,Nighantu Ratnakara by sri Ravidutta,Publisher Nawal Kishore press,Luknow,Reprint-1892.
54. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-13.

55. Vyasa Kesavaram,Laghu Nighanta by A.S.Paranjape,publisher Dr.G.S.Pendase I.D.R.A. pune,print-1962.
56. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-194.
57. Shri Shaligram Vaishya,Shaligram Nighantu Bhushanam,Publisher Khemaraj Shrikrushnadas Publication,Bombay,Reprint-1993.
58. Thakur Jayakrishna Indrajai,Vanaspati sastra byVaidya Banwarilal Misra,Publisher Premlata Natani,Jaipur,Reprint-1995.
59. Birjacharan Gupta,Vanaushadhi Darpana published in First part-1909 & second part-1908.
60. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-13.
61. Pt.Ramprasad,Haritakyadi Nighantu with commentary Shivaprakashika by Shivasharma Vaidya Shastri,publisher Khemaraj Shrikrushnadas,Bombay,Print-2000.
62. Bapalal vaidya,Nighantu Adarsha Vol.1,Publisher Chaukhambha Bharati Academy,Varanasi,Reprint-2007.
63. Rupalal Vaishya,Rupa Nighantu,publisher Nagari Paricharini Sabha,Kashi,print-1934.
64. Rajavaidya Shankaradutta Gauda,Shankara Nighantu published by Manager,Vanaushadhi Bhandhar,Jabalpur ,Print-1935.
65. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-14.
66. Chandraraj Bhandari,Vanaushadhi Chandrodaya published by Chowkambha Sanskrit series,Varanasi,print-1938.
67. Dr.Shanthkumar Lucas,An introduction to Nighantu of Ayurveda,edited by Prof.Dr.,Jyotimitra,Publishers Chaukhambha Sanskrit bhawan, Varanasi,2006,page-14.
68. Pt.Aryadasa Kumara singha,Mahaushdha nighantu with 'VIDYOTINI' Hindi commentary and notes by shri Indradeva Tripathi,publisher,Chaukhambha Vidyabhavwan,Varanasi,print-1971.
69. Prof. priyavrat Sharma,Priyanighantu with Hindi commentary on 'PADMA' publisher Chaukhambha surbharati prakashan,Varanasi,Reprint-1995.
70. Prof.P.V.Sharma,Dravyaguna Kosa published by Chokambha orientalia,Varanasi,print-1997.
71. Prof.Ramesh Bedi,Bedi Vanaspati kosa published by M.S.Kitabghar,New Delhi,Reprint-2004.