ISSN 2456-3110
Vol 4 · Issue 6
Nov-Dec 2019

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences

Charaka Publications

Indexed

Journal of
Ayurveda and Integrated Medical Sciences
ISSN 2456-3110
REVIEW ARTICLE Nov-Dec 2019

A Review on Extrapharmacopoeial Drugs beneficial in *Vatavyadhi*

Anjali Kumari M.U.,[1] Padigar Shrikanth,[2] Sagri Ravikrishna[3]

[1]Post Graduate Scholar, [2]Professor and Head, Dept. of PG Studies in Dravyaguna Vigyana, [3]Associate Professor, Dept. of Agada Tantra, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Kuthpady, Udupi, Karnataka, INDIA.

ABSTRACT

Background: The literatures have emphasised the usage of locally available flora for prevention as well as treating diseases. Folklore practioners are successfully treating majority of diseases with the medicinal knowledge which was transferred from ancestors. Many researches are in process to incorporate such knowledge into treatment modality of Ayurveda and there by many drugs are added to Ayurveda materia medica through ethno-medico-botanical survey till date after several experimental and clinical trials. **Aim:** The present review focuses on research work of extra-pharmacopoeial drugs carried out at Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Udupi with main emphasis on the *Vatavyadhi* (Neuro-muscular disorder). **Materials and Methods:** Critical analysis of the compiled literature for better understanding of the extrapharmacopoeial drugs research work with main emphasis on the *Vatavyadhi*. **Results:** *Agnichikitsa Alepa* is treatment modality practised in the Institute for the management of *Pakshaghata* and *Amavata*. *Papata* and *Bandha* are extrapharmacopoeial drugs used in *Agnichikitsa alepa* along with other drugs. Apart from this around 13 extrapharmacopoeial drugs were studied by Department of Dravyaguna and are found to be effective in Neuro-muscular disorder. **Conclusion:** Such attempt will certainly encourage young researchers to work on extrapharmacopoeial drugs for the development and promotion of Ayurveda materia medica.

Key words: *Extra-pharmacopoeial drugs, Vatavyadhi (Neuromuscular disorder), folklore information.*

INTRODUCTION

The extra pharmacopoeia, an authorized reference book on drugs was first produced by William Martindale in 1883 and is still known as 'Martindale'. It provides all sorts of latest Information's on drugs i.e. newly discovered drugs as well as updates on existed drugs. In *Vedas*, namely *Rig- Veda, Yajur-Veda* and *Atharva Veda* around 67, 81 and 289 plants were mentioned respectively. In *Samhita kala, Charaka Samhita, Sushrutha Samhita, Astanga Hridaya* approximately 1100, 1270, 1150 medicinal plants were mentioned respectively. In *Nighantu Kaala*, additions of around 400 new medicinal plants. A chronological increase in number of *Aushadhi Dravya* (medicinal drugs) is traced from *Veda Kaala* to *Nighantu Kaala*. Medicinal usage of few more plants are yet to be known. Folk practioners are successfully treating majority of diseases using local flora with the medicinal knowledge which was transferred from ancestors. Unfortunately these things were not documented, some are partly explored and as result many folk information's are lost. Taking it as serious matter, many researches are in process to incorporate such knowledge into treatment modality of Ayurveda. Even the literatures have instructed to use locally available flora in treatment.[1] Hence to use those plants and to add those plants into Ayurveda materia

Address for correspondence:
Dr. Anjali Kumari M.U.
Post Graduate Scholar Dept. of PG Studies in Dravyaguna Vigyana, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Kuthpady, Udupi, Karnataka, INDIA.
E-mail: anjalikumarimu2015@gmail.com

Submission Date: 08/10/2019 Accepted Date: 15/11/2019

Access this article online

Quick Response Code

Website: www.jaims.in

Published by Maharshi Charaka Ayurveda Organization, Vijayapur, Karnataka (Regd) under the license CC-by-NC-SA

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

medica, repeated study has to be carried as per the guidelines of Ayurveda, which is the need of the present era. With this intension of exploring the vast plant sources and evaluation of extra-pharmacopoeial drugs, First Major initiative has been taken by the Department of Dravyaguna, IPGT & RA, Gujarat Ayurveda University, Jamnagar, Where in extra-pharmacopoeial plants were coined with the term *Anukta Dravya*. Later these study established in various Ayurvedic institutes all over India including our Sri Dharmasthala Manjunatheshwara College of Ayurveda, Udupi.

The *Dravya* (drugs) which is not mentioned in *Samhita, Nighantu* or Ayurvedic Pharmacopeia of India is Considered as *Anukta Dravya*. *Acharya Charaka* has given various assessment criteria of *Aushadha Dravya* (medicinal drugs).[2] There are around 10 criteria. Same thing can be implicated for the assessment of *Anukta Dravya* too. *Anukta Dravya* can be understood in 3 different dimensions namely *Anukta Dravya* (which explains about new drugs as such), *Ukta Dravya* with *Anukta Anga* (New part of existed drug /known drug) and *Ukta Dravya* with *Anukta Prayojana* (New therapeutic utility of existed drug).

Materials and Methods

Literary informations and research updates of *Anukta Dravya* are collected from Library of Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Udupi. Depending on dimensions of *Anukta Dravya,* the informations are collected. For *Anukta Dravya* details of Botanical identity, form and indication of a drug in folklore practices, results of basic study, coined Sanskrit name were compiled. For *Ukta Dravya Anukta Anga* as well as *Anukta Prayojana* details of Botanical identity, form and indication of a drug in folklore practices were compiled along with the study result. Critical analysis of the compiled informations were done for better understanding of the research updates of extrapharmacopoeial drugs carried at Sri Dharmasthala Manjunatheshwara College of Ayurveda, Udupi with main emphasis on the *Vatavyadhi* (Neuromuscular disorder).

Results & Discussion:

Information of Medicinal utility of extra-pharmacopoeial drugs are obtained from nearby places of Udupi district, which is being used by Folklore practioners in the management of *Vatavyadhi* (Neuromuscular disorder).

Agnichikitsa Alepa[3] is treatment modality practised in the Institute for the management of *Pakshaghata* and *Amavata*. It contains the paste prepared out of dry drugs such as *Lashuna (Allium sativum* Linn.), *Lavanga (Syzygium aromaticum* Merr. Perry), *Haridra (Curcuma longa* Linn.), *Maricha (Piper nigrum* Linn.), *Sarshapa (Brassica camprestris* Linn.) and wet drugs such as leaves of *Kshudra Agni Mantha (Clerodendron phlomides* Linn), *Vana Tulasi (Ocimum basilicum* Linn.), *Nirgundi (Vitex negundo* Linn.), *Papata (Pavetta indica* Linn.), *Bhandha (Bridelia scandens* Roxb. Willd.). This paste was applied to the whole body of patients and 5gm of the paste was internally administered in b.d dosage. The information of this formulation is gathered from Ankola, where in administering Special kind of treatment in *vata-vikara* by few families in *Belambara* village near *Ankola*, this treatment evolved as specific treatment in the management of *Pakshagata* and *Amavata* in 1978.[3] Among all drugs used in *Agnichikitsa*, 2 drugs are *Anukta Dravya* with local name *Papata (Pavetta indica* Linn.) (Figure 1) and *Bandha (Bridelia scandens* Roxb. Willd.) (Figure 2).

This review highlighted such extrapharmacopoeial drugs which have been proven effective in *Vatavyadhi* (Neuro-muscular disorder) through experimental and few clinical studies undertaken at Department of Dravyaguna, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Udupi, where in around 13 drugs were proved to be effective in *Vatavyadhi* (Neuro-muscular disorder). Namely *Madivaala soppu, Hulimajjige kolu, Mulluharalu, Haradahacchaga, Noppina mara, Gulimaavu, Bilikenji, Neerele, Kumti beeja, Gurodagida, Hebbalasu, Shivni, Punarpuli.* The botanical source along with local and coined Sanskrit name and family and mode of usage in neuromuscular disorder by folklore practioners are described in Table

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

1. And the review of results of all drugs studies is depicted in Table 2.

Table 1: Result showing the ethnobotanical information.

SN	Ailments	Botanical, Local and Sanskrit name	Family	Mode of usage
1.	Low backache	B.N-*Antidesma menasu* Miq. L.N -*Madivaala soppu*[4] S.N-*vatashothaha** (Figure 3)	Euphorbiaceae	Matured leaves are used for preparation of dishes like *idly / dosa*, administered in the empty stomach for 3-7 days.
2.	Low backache	B.N-*Antidesma acidum* Retz. L.N -*Hulimajjige kolu*[5] S.N-*Amlapallava** (Figure 4)	Euphorbiaceae	To chew the tender leaves in empty stomach or dishes like *idly / dosa* are prepared using leaves, is administered in the empty stomach.
3.	Paralysis	B.N-*Scleropyrum pentandrum* (Dennst.) Mabberley. L.N -*Mulluharalu*[6] S.N- *Kantaki eranda** (Figure 5)	Santalaceae	Seed oil is used for external application and for dish like *dosa.*
4.	Joint pain and fracture	B.N- *Zornia gibbosa* Span. L.N-*Haradahacchaga*[7] S.N- *Samyojaki** (Figure 6)	Fabaceae	Thick paste of whole plant is used externally to reduce pain and inflammation at site of fracture.
5.	Joint pain and fracture	B.N- *Litsea glutinosa* Lour. L.N -*Noppina mara*[8] S.N- *Medasaka* (Figure 7)	Lauraceae	Either Stem paste/leaf paste applied externally, or bark decoction internally
6.	Joint pain and fracture	B.N- *Persea macrantha* (Nees) Kosterm. L.N -*Gulimaavu*[9] S.N-*Picchilataru** (Figure 8)	Lauraceae	Leaves are used externally & internally or stem bark decoction for orally.
7.	Joint pain	B.N- *Caesalpinia mimosoides* Lam. L.N -*Bilikenji*[10] S.N-*Vatakantaki** (Figure 9)	Fabaceae	Tender leaves dishes administered or Decoction prepared by either Root/ Whole plant is given 100ml in two divided dose or Oil prepared using stem bark along with sesame oil and applied externally.
8.	Joint pain (Sandhivata) & *Saama vatavyadhi*	B.N- *Hoya ovalifolia* Wight & Arn. L.N -*Neerele*[11] S.N-*Tiktaamladala**	Asclepiadaceae	Decoction of leaves is given twice daily for 9 days in joint

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

		(Figure 10)		pain or Gruel prepared using 20-30 leaves is given early morning in empty stomach for 3 days in *Saama vatavyadhi*.
9.	Joint pain	B.N- *Gnetum ula* Brongn. Non Karst. L.N -*Kumti beeja*[12] S.N- *Mrgalindika* (Figure 11)	Gnetaceae	Leaf paste is used for external applications or seed oil is used for massage.
10.	Knee joint pain	B.N- *Glycosmis pentaphylla* (Rentz.) A.DC. L.N- *Gurodagida*[13] S.N- *Asvasakhotah* (Figure 12)	Rutaceae	Powder of leaves is given orally with milk or leaf powder is applied externally with hot water.
11.	Joint pain	B.N- *Artocarpus hirsutus* Lam. L.N - *Hebbalasu*[14] S.N- *Kshudra panasa* (Figure 13)	Moraceae	Boiled seeds are used as dish or Seed oil for external application .
12.	Knee joint pain	B.N- *Gmelina arborea* Roxb. L.N - *Shivni*[15] S.N- *Gambhari* (Figure 14)	Verbenaceae	Leaf decoctions are given internally.
13.	Cracked heels / *Paadadhari*	B.N- *Garcinia indica* Choisy. L.N - *Punarpuli*[16] S.N- *vrikshamla*. (Figure 15)	Guttiferae	Seed oil is used (which kokum butter) for external application

*coined with Sanskrit term, B.N. - Botanical name, L.N. - Local name, S.N. - Sanskrit name

Table 2: Review of results of works on extrapharmacopoeial drugs beneficial in *Vatavyadhi* (Neuro-muscular disorder)

SN	Drug	Study result In brief
1.	*Antidesma menasu* Miq.[4]	The study have conducted experimentally and Found to have anti-inflammatory and analgesic activity. Established the following *Rasapanchaka:* *Rasa - Tikta Pradhana Rasa* and *Kashaya, Madhura Anurasa* *Guna - Snigdha, Guru* *Virya - Ushna* *Vipaka - Katu*
2.	*Antidesma acidum* Retz.[5]	The study have been conducted experimentally and Found to have anti-inflammatory and analgesic activity. Established the following *Rasapanchaka:* *Rasa - Amla Pradhana rasa* and *Madhura, Kashaya Anurasa* *Guna - Picchila, Snigdha, Laghu* *Virya - Ushna* *Vipaka - Amla*
3.	*Scleropyrum pentandrum* (Dennst.) Mabberley.[6]	Through the study Established the following *Rasapanchaka:* *Rasa - Madhura Pradhana rasa* and *Tikta, Katu, Kashaya Anurasa* *Guna - Snigdha, Guru* *Virya- Ushna* *Vipaka- Katu*
4.	*Zornia gibbosa* Span.[7]	The study have been conducted experimentally and Found to be safe even at higher dose of

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

		3200mg/kg body weight in acute toxicity screening in mice. Found to have anti-inflammatory and analgesic activity. Established the following *Rasapanchaka:* *Rasa - Tikta Pradhana rasa* and *Madhura, Kashaya Anurasa* *Guna - Guru, Sheeta, Snigdha, Picchila* *Virya - Sheeta* *Vipaka - Madhura*
5.	*Litsea glutinosa* Lour.[8]	The study has been conducted experimentally and clinically. Found to have anti-inflammatory and analgesic activity. Also Found to be effective in joint pain.
6.	*Persea macrantha* (Nees) Kosterm.[9]	The study has been conducted experimentally and Found to be effective clinically. Established the following *Rasapanchaka:* *Rasa- Tikta Pradhana rasa* and *Madhura, Kashaya Anurasa* *Guna- Guru, Snigdha, Picchila, Mridu* *Virya- Ushna*
7.	*Hoya ovalifolia* Wight & Arn.[10]	The study has been conducted experimentally and Found to have anti-inflammatory and analgesic activity. Established the following *Rasapanchaka:* *Rasa- Tikta Pradhana rasa* and *Kashaya, Amla Anurasa* *Guna- Guru, Snigdha* *Virya- Sheeta* *Vipaka- Madhura*
8.	*Gnetum ula* Brongn.	The study has been conducted experimentally and Found to
	Non Karst.[11]	have LD50 is much more than 2000mg/kg Found to have higher antioxidant property in fresh nuts with special reference to roasted nuts. Established the following *Rasapanchaka:* *Rasa- Madhura Pradhana rasa* and *Kashaya Tikta, Katu Anurasa* *Guna- Guru, ushna, Ruksha* *Virya- Ushna* *Vipaka- Katu*
9.	*Glycosmis pentaphylla* (Rentz.) A.DC[12]	The study has been conducted clinically and Found to be effective in joint pain. Established the following *Rasapanchaka:* *Rasa- Tikta Pradhana rasa* and *Katu, Kashaya Anurasa* *Virya- Ushna*
10.	*Artocarpus hirsutus* Lam.[13]	Through the study Established the following *Rasapanchaka* of seed oil: *Rasa- Madhura pradhana Kashaya, Tikta, Katu anurasa* *Guna- Guru, Snigdha* *Virya- Ushna* *Vipaka- Madhura*
11.	*Gmelina arborea* Roxb.[14]	The study has been conducted clinically and Found to be effective in *Sandhigata vata* (knee joint pain).
12.	*Garcinia indica* Choisy.[15]	The study has been conducted clinically and Found to be effective in cracked heels (*Paadadari*).

CONCLUSION

As emphasised in Veda "*Aano bhadrah kritavo yantu vishwatah*" knowledge has to be incorporated from all possible sources. *Acharya Susruta* has explained 4

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

dimensions to broaden the knowledge, namely Continous learning process, argument on subject, thirst to have knowledge from other *Shastras* and discussion on topic with particular subject expert.[17] The literature have emphasised the usage of Locally available flora for prevention as well as treating diseases.[1] Folklore practioner's are successfully treating majority of diseases with the medicinal knowledge which was transferred from ancestors. Folklore information which is gathered through ethno-medico-botanical survey has to be evaluated for the better understanding and usage in future practices. Many researches are in process to incorporate such knowledge into treatment modality of Ayurveda and there by many drugs are added to Ayurvedic materia medica through ethno-medico-botanical survey till date after several experimental and clinical trials. This review will certainly encourage young researchers to work on extrapharmacopeial drugs for the development and promotion of Ayurveda materia medica.

Figure 1: *Pavetta indica* Linn.

Figure 2: *Bridelia scandens* Roxb. Willd.

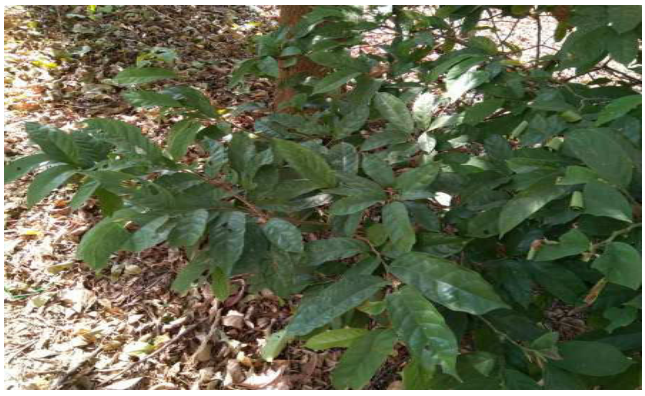

Figure 3: *Antidesma menasu* Miq.

Figure 4: *Antidesma acidum* Retz.

Figure 5: *Scleropyrum pentandrum* (Dennst.) Mabberley.

Figure 6: *Zornia gibbosa* Span.

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

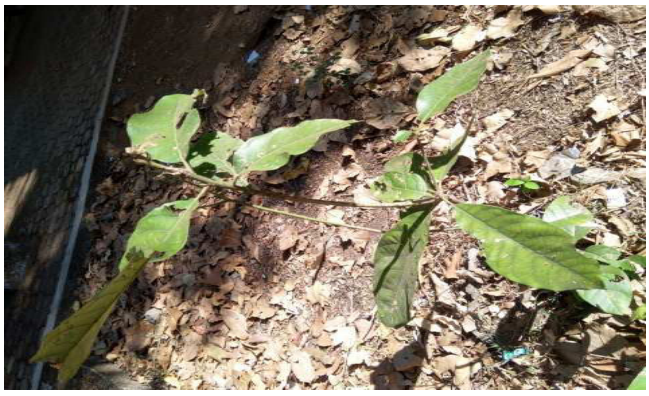

Figure 7: *Litsea glutinosa* Lour.

Figure 8: *Persea macrantha* (Nees) Kosterm.

Figure 9: *Caesalpinia mimosoides* Lam.

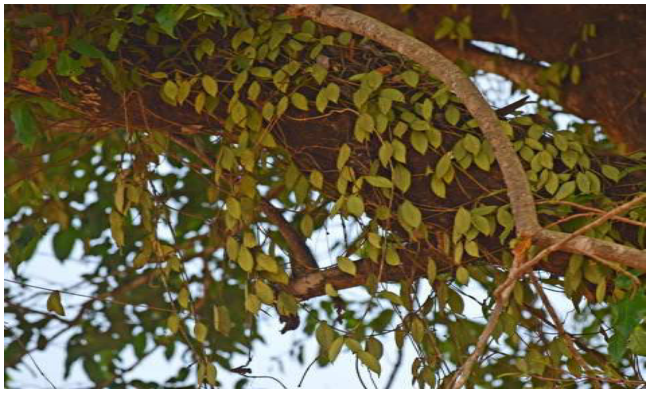

Figure 10: *Hoya ovalifolia Wight* & Arn.

Figure 11: *Gnetum ula Brongn*. Non Karst.

Figure 12: *Glycosmis pentaphylla* (Rentz.) A.DC.

Figure 13*: Artocarpus hirsutus* Lam.

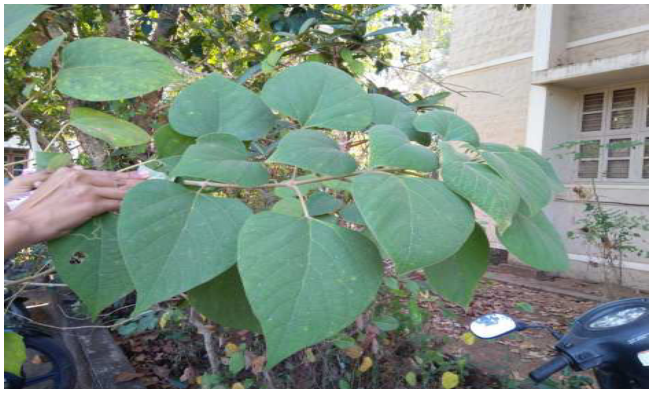

Figure 14: *Gmelina arborea* Roxb.

ISSN: 2456-3110 REVIEW ARTICLE Nov-Dec 2019

Figure 15: Garcinia indica Choisy.

ACKNOWLEDGEMENT

All the staff and PG Scholar, Dept. of PG Studies in Dravyaguna Vigyana, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Kuthpady, Udupi. Folklore Medicine Research Centre, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Udupi. Dept. of PG Studies in Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Kuthpady, Udupi.

REFERENCES

1. Vagbhata, Ashtanga Samgraha with Sasilekha Sanskrit commentary by Indu, Edited by Shivprasad Sharma, Varanasi: Chowkhamba Sanskrit Series Office, Reprint 2016; Sutrasthana; Chapter 23, Verse 28. Pg.no. 182 , Pp.965
2. Agnivesha, Charakasamhita, revised by Charaka and Dridabala with Ayurveda Dipika commentary by Chakrapanidatta edited by Vaidya Yadavji Trikamji Acharya, Varanasi: Chaukhamba Surbharati Prakashan, Reprint 2011; Vimanasthana; Chapter 8, Verse 87. Pg.no. 275 Pp.738
3. Pathanjali, A Clinical study on the effect of Agnichikitsa in Pakshaghatha, SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2006
4. P. S Arun. Phyto-pharmacological study on Antidesma menasu Miq – A folk plant, SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2010-13
5. Arathi Krishnan, Ravi Mundugaru, Suma Mallya, Sridhar Bairy, Ravishankar B. Experimental evaluation of analgesic and anti inflammatory potential of leaves of Antidesma acidum on wistar albino rats, J Biol & Sci Opin . 2014; 2 (1): 1-3
6. Jitendra Pandagere, Study on Mulluharalu (Scleropyrum pentandrum (Dennst.) Mabberley) – A folk plant, SDM College of Ayurveda, Udupi, RGUHS, Bangalore ; 2012- 2-15
7. https://www.google.com/amp/s/www.researchgate.net/publication/305905673_Evaluation_of_anti-inflammatory_activity_of_Zornia_gibbosa_span_samyojaki/amp accessed on 3-1-2019.
8. Saritha Menon, A pharmacognostic & experimental study on medasaka (Litsea glutinosa .Lour) w.s.r to its shothahara & vedanasthapana karma., SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2004-2007
9. Niranjan Prabhu, Padigar Shrikanth,Sagri Ravikrishna. A Review andTherapeutic Potentialities of Picchilataru-Persea macrantha(Nees) Kosterm. -A Medicinal Plant, Int J Ayu Pharm Chem 2018; 9(2) 468-477
10. Rekha A.S, Pharmacognostical and experimental study on Caesalpinia mimosoides Lam- A folk plant, SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2008-2011
11. Vinod S Ullageddi, Phyto-pharmacological study on Hoya ovalifolia Wight & Arn. Ex Wight – A Folk Plant, SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2007-2010
12. Ramya Krishna KV, Bairy S, Sunil Kumar KN, Sudhakar. Characterization of pharmacognostical and preliminary phytochemical features of seeds of a Folk Plant - Gnetum ula Brongn. J Ayu Herb Med 2016; 2(5):171-177.
13. Umayamma K S, A comprehensive pharmacognostical and clinical study on Asvasakhotah (Glycosmis pentaphylla (Retz) A. DC) w.s.r to Janu sandhigata vata, SDM College of Ayurveda, Udupi, RGUHS, Bangalore; 2008- 2011
14. Ankita, Hebbar S. Chaithra, S. Ravikrishna, Prabhu Suchitra N. Pharmacognostical And Analytical Analysis

ISSN: 2456-3110 **REVIEW ARTICLE** Nov-Dec 2019

Of Artocarpus hirsutus Lam.-A Folk Plant, International Ayurvedic Medical Journal, 2017; 5(2): 411-417

15. Manasa K, Shrikanth P, Ravikrishna S, Suchithra Prabhu. Pharmacognostic And Phytochemical Study Of Leaf Of Gambhari (Gmelina arborea Roxb), International Ayurvedic Medical Journal, 2017; 5(7): 2343-2351
16. Faisal M, Sreekant VJ, Shridhara BT. Clinical efficacy of Vrukshamla Beeja Taila (Kokum Butter) in the Management of Padadari (Cracked Heels). J Ayu Med Sci 2017; 2(2) : 209-213.
17. Acharya Sushruta, Sushruta Samhita, with Nibandhasangraha Commentary of Sri Dalhana Acharya, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Orientalia, Varanasi, Pp-822,Pg.No.502.

How to cite this article: Anjali Kumari M.U., Padigar Shrikanth, Sagri Ravikrishna. A Review on Extrapharmacopoeial Drugs beneficial in Vatavyadhi. J Ayurveda Integr Med Sci 2019;6:166-174.

Source of Support: Nil, **Conflict of Interest:** None declared.

****