



Review Article

www.ijrap.net

(ISSN Online:2229-3566, ISSN Print:2277-4343)



A REVIEW ON VISHAVILWADI AGADA

Jesney Rodrigues NC ^{1*}, Gopikrishna S ²¹ PG Scholar, VPSV Ayurveda College Kottakal, Kerala, India² Associate Professor, VPSV Ayurveda College Kottakal, Kerala, India

Received on: 25/5/24 Accepted on: 28/6/24

*Corresponding author

E-mail: jesneyrodrigues9494@gmail.com

DOI: 10.7897/2277-4343.154124

ABSTRACT

Kerala has a proven unique background in the field of toxicology (Visha chikitsa). Many eminent Visha vaidyas in Kerala managed snake bites and other poisonous stings/ bites. Rather than classical Ayurvedic texts, many books were written by the Visha Vaidyas of Kerala based on their practical knowledge. Kriyakoumudi is one such book which describes many yogas which contain herbal and herbo-mineral drugs for the treatment of Visha as well as its complications. Many formulations mentioned in this book, once used as first-line management of poisonous bites and stings, are now being neglected and forgotten. Vishavilwadi agada is one such antitoxic formulation. In the present day, only a few antitoxic formulations and practices are used for the management of poisoning, the reason for the same being the non-availability of the drugs, the controversy regarding the identity of the ingredients of the formulations mentioned in the classical texts and the lack of knowledge about the traditional treatment procedures and formulations. Vishavilwadi agada, once practised as a lifesaving medicine, remains unrecognized.

Keywords: Vishavaidyas, Vishavilwadi agada, Kriyakoumudi, Visha

INTRODUCTION

Kerala has a proven unique background in the field of toxicology (Visha chikitsa). There were many eminent Visha vaidyas in Kerala who managed snake bites and other poisonous stings/bites. The treatment principles of Visha chikitsa are very well described in books such as Vishanarayaneeyam, Uddeesatantra, Ulpalatantra, Harameghala, Lakshanamritam, Ashtanga hridaya, Kalavanchana etc¹. All these books were written in Sanskrit. Later, many Visha vaidya grandhas were written in Malayalam. Kriyakoumudi is one such book that describes many yogas containing herbal and herbomineral drugs for treating Visha and its complications. Many formulations mentioned in this book, once used as first-line management of poisonous bites and stings, are now being neglected and forgotten. Vishavilwadi agada is one such formulation.

Vishavilwadi agada was the contribution of V M Kuttikrishna Menon. In his famous book Kriyakoumudi, he mentioned this yoga, a Keraleeya Visha chikitsa grantha, indicated for snake poisoning, specifically in Darvikara (cobra) poisoning. Vilwadi agada is a choice of drug in acute toxicopathological conditions with 13 ingredients. The references of Vilwadi agada can be found in Ashtanga Hridaya, Ashtanga samgraha, Kriyakoumudi, Vishavaidya Jyotsnika, Sahasrayoga etc. In Ashtanga Hridaya, the preparation was explained under the contest of Sarpavisha Pratisedha in Uttarasthana². Apart from Vilwadi agada, this antitoxic drug combination contains three drugs additionally: 1. Nili (*Indigofera tinctoria* Linn) 2. Patha (*Cyclia peltata*) 3. Karalaka (*Aristolochia indica* Linn)³. However, nowadays, the preparation of this formulation is restricted to traditional practitioners of Visha only.

Table 1: Constituents of Vishavilwadi agada⁴

Drugs	Binomial Nomenclature	Family	Part Used
Vilva	<i>Aegle marmelos</i> (L.) Correa	Rutaceae	Root bark
Surasa	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Flower
Karanja	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Seed
Natam	<i>Valeriana jatamansi</i> Jones ex Roxb.	Valerianaceae	Root
Surhva	<i>Cedrus deodara</i> (Roxb. exD. Don) G. Don	Pinaceae	Heart wood
Haritaki	<i>Terminalia chebula</i> Retz.	Combretaceae	Fruit
Amalaki	<i>Phyllanthus emblica</i> L.	Phyllanthaceae	Fruit rind
Vibhitaki	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Fruit
Pippali	<i>Piper longum</i> L.	Piperaceae	Dried spikes
Nagaram	<i>Zingiber officinale</i> Roscoe.	Zingiberaceae	Rhizome
Maricam	<i>Piper nigrum</i> L.	Piperaceae	Fruit
Haridra	<i>Curcuma longa</i> L.	Zingiberaceae	Rhizome
Daruharidra	<i>Coscinium fenestratum</i> (Gaertn.) Colebr	Berberidaceae	Stem
Nili	<i>Indigofera tinctoria</i> L.	Fabaceae	Root
Iswari	<i>Aristolochia indica</i> L.	Aristolochiaceae	Root
Patha	<i>Cyclia peltate</i> (Lam) Hook.f.andThoms	Menispermaceae	Root
Basta mutra	<i>Capra aegagrushircus</i>	Bovidae	Urine

Table 2: Pharmacological properties of drugs⁴

Drug	Rasa (Taste)	Guna (Property)	Virya (Potency)	Vipaka (Transformation)	Karma (Mode of Action)
Vilva	Kaṣaya Tikta	Laghu Rūksha	Uṣna	Katu	Kapha-vataśamaka
Surasa	Katu Tikta	Laghu Rūksha Tikṣna	Uṣna	Katu	Kaphavatajit viṣapaha
Karanja	Katu Tikta	Laghu Tikṣna	Uṣna	Katu	Kapha-vatajit bhūtagna
Natam	Katu	Laghu Snigdha	Uṣna	Katu	Kaphavatahara viṣapaha
Surahva	Tikta	Laghu Snigdha	Uṣna	Katu	Kaphavatahara
Haritaki	Madhura Amla Katu Tikta Kaṣaya	Laghu Rūksha	Uṣna	Madhura	Tridośasamana
Amalaki	Amla Kaṣaya Katu Tikta Madhura	Sara Rūksha	Sita	Madhura	Tridośasamana
Vibhitaki	Kaṣaya	Laghu Rūksha Sara	Sita	Madhura	Kaphapithajit
Pippali	Katu	Snigdha Sara Laghu Tikṣna	Anuṣnata	Katu	Vatakaphanasana rasayana
Nagaram	Katu	Guru Tikṣna Rūksha	Uṣna	Madhura	Vatakaphahara
Maricam	Katu	Laghu Tikṣna Rūksha	Uṣna	Katu	Kaphagna
Haridra	Katu Tikta	Rūksha	Uṣna	Katu	Kaphapithaśamana viṣanasana
Daruharidra	Tikta	Rūksha	Uṣna	Katu	Kaphanasana
Nili	Tikta	Sara	Uṣna	Katu	Vatakaphahara, rēchani, viṣanasana
Isvari	Kaṣaya Tikta	Sugandha	Uṣna	Katu	Tridośhagna, Viśahara
Patha	Tikta	Laghu Tikṣna	Uṣna	Katu	Vatakaphahara, Viśaśamana

Basta mutra⁵

Rasa: Katu, Lavana, Tikta

Guna: Uṣna, Tikṣna, Snigdha

Virya: Uṣna

Vipaka: Katu

Doṣagnata: Kaphashamana, Vataanulomana, Pithavirodhi

Table 3: Phytoconstituents and pharmacological activities

Drug	Phytoconstituents	Pharmacological activities
Vilva	Marmenol, marmenol, marmelosin, marmelide, psoralen, alloimperatorin, rutaretin, scopoletin, aegelin ⁶	Antidiarrheal, antimicrobial, radioprotective, anticancer, anti-inflammatory, ulcer healing potential ⁷
Surasa	Linalool, Eugenol, methyl eugenol, carvacrol, five fatty acids – stearic, palmitic, oleic, linoleic, linolenic acids	Antibacterial, antioxidant, anti-inflammatory, analgesic, immunomodulatory ⁸
Karanja	Demethoxy-kanugin, kaempferol, kankone, kanugin, karangin, pinnatin, pongamol, pongapin, quercetin, saponin.	Antimicrobial, antioxidant, anti-inflammatory, antidiabetic, anthelmintic, and insecticidal activities ⁹
Natam	Valepotriates, flavones, sesquiterpenoids, terpenoids, phenolic compounds ¹⁰	Antioxidant, neuroprotective, anti-inflammatory, anti-viral, antidepressant, antispasmodic, analgesic ¹¹
Surahva	Sterols, β-himachalene, sesquiterpene, Deodarin, Himachalol, Cedeodarin, β-sterol, shikimic acid ¹²	Anticancer, antimicrobial, anti-inflammatory, analgesic, antiarthritic ¹³
Haritaki	5-methyl indole-quinoline, gallic acid, ellagic acid, tannic acid, chebulic acid, chebulagic acid, corilagin, mannitol	Antibacterial, antioxidant, anti-inflammatory, anticancer, hypoglycemic ¹⁴
Amalaki	Apigenin, gallic acid, ellagic acid, chebulinic acid, quercetin, chebulagic acid, Emblicanin A, corilagin ¹⁵	Anti-inflammatory, antipyretic, antineutrophil and antiplatelet properties, antibacterial, anti-viral ¹⁶
Vibhitaki	Gallic acid, chebulic, chebulagic, chebulinic acids ellagitannins, corilagin, ellagic acid, triterpenes and triterpenoidal glycosides ¹⁷	antidiabetic, antiulcer, analgesic, antifungal, antibacterial, anti-hypertensive activity

Pippali	Piperine, methyl piperine, piperonaline, asarinine, pellitorine, piperlongumine ¹⁸	Hepatoprotective, cardioprotective, antimicrobial, anti-tumour, anti-apoptosis
Nagaram	gingerols, shogaols, 3-dihydroshogaols, paradols, dihydroparadols, acetyl derivatives of gingerols, gingerdiols ¹⁹	antimicrobial, anticancer, antioxidant, antidiabetic, nephroprotective, hepatoprotective, immunomodulatory activity
Maricam	Piperamide, Pipericide, Piperine, B, Sarmentine, Sarmentosine, Brachyamide B	antioxidant, antitumor, antipyretic, analgesic, anti-inflammatory ²⁰
Haridra	Curcumin, demethoxycurcumin, bisdemethoxycurcumin, tumerone, diferuloylmethane	Antimicrobial, anticancer, neuroprotective, anti-inflammatory, antioxidant ²¹
Daruharidra	Protoberberine, berbamine, Berberine, oxycanthine, palmatine, dehydrocaroline, jatrorrhizine and columbamine	Hepatoprotective, antimalarial, anticancer, anti-inflammatory, antimicrobial ²²
Nili	Penicillin G Potassium, indigo P E, Calcium carbonate	Hypoglycaemic, Antifungal, Antitumour, Hepatoprotective, Anticonvulsant and CNS depressant ²³
Iswari	Aristochine, Aristolochene, Ishwarone, Aristolochic acid, Ishwarane, Cephaeradione, Aristolindiquinone	Antiarthritic, anti-inflammatory, antiperiodic, diuretic ²⁴
Patha	Fangchinoline, Cycleapeltine, Cycleadrine, Cycleacurine, Cycleanorine, Cycleahomine, Chloride, Chondocurine, Magnoflorine, Isotetradrine, Perpamine, Cycleamine, Burmannaline	Anti-inflammatory, diuretic, digestive disorders ²⁵

The preparation of Vishaviwadi agada

All the drugs mentioned in Table 1 are taken in equal quantity mixed well and bhavana (trituration) with basta mootra (goat's urine); continuous trituration for proper mixing of all drugs is made into kalka (paste) form, later into gulika form.

DISCUSSION

The probable mode of action of Vishavilwadi agada

Vishavilwadi agada is a formulation mentioned in Kriyakoumudi by V M Kuttikrishna Menon. It contains sixteen drugs which are processed with goat's urine. The difference from Vilwadi agada is the presence of three drugs, additionally Nili, Patha and Iswari. This formulation also has antimicrobial, krimighna, anti-poisonous, yogavahi and antioxidant properties. This formulation is tikta rasa predominant. Tikta rasa has high Viśahara (antitoxic) and krimighna (anthelmintic) properties. All three drugs added to Vilwadi agada are Vishanashana. These three drugs added enhance the property of the anti-poisonous effect of the formulation. Vishavilwadi agada is indicated for snake bites, especially cobra bites. It is predominantly tikta and katu in rasa, laghu and rooksha in guna and ushna in virya with Kapha-Vatahara and Vishaghna (antitoxic) properties. Based on the above facts, it was presumed that this Vishavilwadi agada is more potent than Vilwadi agada, which is widely practised. Traditional Visha viadys used Vishavilwadi agada as a first aid in snake bites and other severe poisonous bites and stings.

CONCLUSION

From the current review, it is clear that Vishavilwadi agada, as described by V M Kuttikrishna Menon, comprises a variety of medications with anti-allergic, antitoxic, and vishanasana, tvakdoshahara, raktashodhaka, kushtaghna, shothahara, jwaraghna and krimighna qualities. It is predominantly tikta, and katu in rasa, laghu and rooksha in guna, ushna in virya (potency) with Kapha-Vatahara and Vishaghna (antitoxic) properties. Based on the above facts, this Vishavilwadi agada was presumed to be more potent than Vilwadi agada. More studies should be done to explore the action of Vishavilwadi agada.

REFERENCES

- Aswathi G, Sreevidya C, Sirosha M, Jayakrishnan P. A Book Review of Jyotsnika (Visha Vaidya). Kerala Journal of Ayurveda. 2022 Dec 31;1(2).
- Dr Anna Moreswar Kunte et al. Aṣṭaṅghṛdaya (commentaries Sarvaṅgasundara of Aruṇadatta and Ayurvedarasayana of Hēmadri). Chaukhamba Krishnadas Academy, Uttarasthana. 2009; 36/84-85

- Menon Kuttikrishna V M. Kriyakoumudi (Malayalam). Kottayam: Sahitya Pravarthaka Co-operative Ltd; 1986; P. 274 /843
- Warrier PK, Nambiar VPK, Ramankutty C. Indian Medicinal Plants Volume 1-5. Chennai: Orient Longman Private Limited; 1994.
- Trikamji Yadavji. Charaka Samhita (Ayurveda-Dipika-Cakrapanidatta, Sanskrit commentary). 2nd ed. Varanasi: Chaukhamba Krishnadas Academy; 2010; Sutrasthana1/93, 100. P 21. Krishnadas Ayurveda Series.
- Manandhar B, Paudel KR, Sharma B, Karki R. Phytochemical profile and pharmacological activity of *Aegle marmelos* Linn. J Integr Med. 2018 May;16(3):153-163. DOI: 10.1016/j.joim.2018.04.007. Epub 2018 Apr 21. PMID: 29709412.
- Sharma CK, Sharma M, Sharma V. Therapeutic Potential of the Medicinal Plant *Aegle Marmelos* (Linn.) Correa: Insight. J Environ Pathol Toxicol Oncol. 2016;35(1):1-10. DOI: 10.1615/JEnvironPatholToxicolOncol.2015014485. PMID: 27279580.
- Singh S, Taneja M, Majumdar DK. Biological activities of *Ocimum sanctum* L. fixed oil - An overview. Indian J Exp Biol. 2007 May;45(5):403-12. PMID: 17569280.
- Al Muqarrabun LM, Ahmat N, Ruzaina SA, Ismail NH, Sahidin I. Medicinal uses, phytochemistry and pharmacology of *Pongamia pinnata* (L.) Pierre: A review. J Ethnopharmacol. 2013 Nov 25;150(2):395-420. DOI: 10.1016/j.jep.2013.08.041. Epub 2013 Sep 7. PMID: 24016802.
- Jugran AK, Rawat S, Bhatt ID, Rawal RS. *Valeriana jatamansi*: An herbaceous plant with multiple medicinal uses. Phytother Res. 2019 Mar;33(3):482-503. DOI: 10.1002/ptr.6245. Epub 2019 Jan 20. PMID: 30663144.
- Cornara L, Ambu G, Trombetta D, Denaro M, Alloisio S, Frigerio J, Labra M, Ghimire G, Valussi M, Smeriglio A. Comparative and Functional Screening of Three Species Traditionally used as Antidepressants: *Valeriana officinalis* L., *Valeriana jatamansi* Jones ex Roxb. and *Nardostachys jatamansi* (D.Don) DC. Plants (Basel). 2020 Aug 5;9(8):994. DOI: 10.3390/plants9080994. PMID: 32764268; PMCID: PMC7464919.
- Bhatia H, Sharma YP, Manhas RK, Kumar K. Ethnomedicinal plants used by the villagers of district Udhampur, JandK, India. J Ethnopharmacol. 2014 Feb 3;151(2):1005-18. DOI: 10.1016/j.jep.2013.12.017. Epub 2013 Dec 21. PMID: 24365639.
- Harsh Pathak, Sakshi Pathania, Shradha Metha, Ramica Sharma, *Cedrus deodara* (Roxb.): a review on the recent update on its pharmacological and phytochemical

- profile, RPS Pharmacy and Pharmacology Reports, 2023; 2(3). DOI: <https://doi.org/10.1093/rpsppr/rqad026>
14. Vemuri PK, Dronavalli L, Nayakudugari P, Kunta A, Challagulla R. Phytochemical analysis and biochemical characterization of *Terminalia chebula* extracts for its medicinal use. Biomedical and Pharmacology Journal. 2019 Sep 25;12(3).
 15. Hasan, Md. Rubaiyat *et al.* Phytochemistry, pharmacological activities and traditional uses of *Emblica officinalis*: A review. International Current Pharmaceutical Journal 2016; 5: 14-21.
 16. Dhale DA, Mogle UP. Phytochemical screening and antibacterial activity of *Phyllanthus emblica* (L.). Science Research Reporter, 2011; 1(3): 138-42.
 17. Dhanani T, Shah S, Kumar S. A validated high-performance liquid chromatography method for determination of tannin-related marker constituents gallic acid, corilagin, chebulagic acid, ellagic acid and chebulinic acid in four Terminalia species from India. Journal of chromatographic science. 2015 Apr 1; 53(4): 625-32.
 18. Gani HM, Hoq MO, Tamanna T. Ethnomedicinal, phytochemical and pharmacological properties of *Piper longum* (Linn). Asian Journal of Medical and Biological Research, Apr 22, 2019; 5(1): 1-7.
 19. Jolad SD, Lantz RC, Solyom AM, Chen GJ, Bates RB, Timmermann BN. Fresh organically grown ginger (*Zingiber officinale*): composition and effects on LPS induced PGE2 production. Phytochemistry, Jul 1, 2004; 65(13): 1937-54.
 20. Ganesh P, Kumar RS, Saranraj P. Phytochemical analysis and antibacterial activity of Pepper (*Piper nigrum* L.) against some human pathogens. Central European Journal of Experimental Biology. 2014;3(2):36-41.
 21. Ahmad RS, Hussain MB, Sultan MT, Arshad MS, Waheed M, Shariati MA, Plygun S, Hashempur MH. Biochemistry, Safety, Pharmacological Activities, and Clinical Applications of Turmeric: A Mechanistic Review. Evid Based Complement Alternat Med. 2020 May 10;2020:7656919. DOI: 10.1155/2020/7656919. PMID: 32454872; PMCID: PMC7238329.
 22. Komal S, Ranjan B, Neelam C, Birendra S, Kumar SN. *Berberis aristata*: A review. Int J Res Ayurveda Pharm., 2011; 2(2): 383-8.
 23. Motamarri N, Karthikeyan M, Rajasekar S and Gopal Vinoth. *Indigofera tinctoria* Linn-A Phytopharmacological Review. International Journal of Research in Pharmaceutical and Biomedical Sciences. 2012;3: 164-169.
 24. Hemlata S, Bhawana S, Sarla S, Bhatt PC, Mishra AP. Phytochemical and pharmacological potential of *Aristolochia indica*: A review. Research Journal of Pharmaceutical, Biological and Chemical Sciences. 2011;2(4):647-54.
 25. Poonghuzhali R, Samraj Sujith, AR Nisha, Nair Suresh and Priya MN. Phytopharmacological characterization of different extracts and fractions of *Cyclea peltata*. The Journal of Phytopharmacology. 2022;11: 155-158. DOI: 10.31254/phyto.2022.11304.

Cite this article as:

Jesney Rodrigues NC and Gopikrishna S. A review on Vishavilwadi agada. Int. J. Res. Ayurveda Pharm. 2024;15(4):89-92 DOI: <http://dx.doi.org/10.7897/2277-4343.154124>

Source of support: Nil, Conflict of interest: None Declared

Disclaimer: IJRAP is solely owned by Moksha Publishing House - A non-profit publishing house, dedicated to publishing quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJRAP cannot accept any responsibility or liability for the site content and articles published. The views expressed in articles by our contributing authors are not necessarily those of the IJRAP editor or editorial board members.