Review Article

The Traditional Healing Power of Vidangarishta: A Review of Its Individual Ingredients

Tatiya A.U*, Jadhav H.M[1]
* Professor, Dept. of Pharmacognsoy, R.C. Patel Institute of Pharmaceutical Education & Research Shirpur 425405 India.
1 Research scholar, Dept. of Pharmacognsoy, R.C. Patel Institute of Pharmaceutical Education & Research Shirpur 425405 India.
***Corresponding author's E-mail:** aniltatiya12170@gmail.com

Received: 09-11-2024; **Revised:** 24-02-2025; **Accepted:** 05-03-2025; **Published online:** 20-03-2025.

ABSTRACT

Vidangarishta is a traditional Ayurvedic formulation widely used for its therapeutic properties, particularly in managing gastrointestinal disorders and promoting digestive health. It is primarily made from Vidanga (*Embelia ribes*), a medicinal plant known for its potent anthelmintic (anti-parasitic), antimicrobial, and digestive-enhancing properties. The formulation undergoes a natural fermentation process, which increases its bioavailability and potency. Vidangarishta is commonly used to expel intestinal worms, stimulate appetite, relieve bloating, and detoxify the digestive system. Its ingredients, which include other herbal components like Pippalimoola, Rasna, Kutaja, and Amalaki, work synergistically to improve digestion, balance the body's doshas, and enhance overall gut health. While it is generally safe when used under proper supervision, excessive or unsupervised use may lead to side effects. Vidangarishta stands as an effective and comprehensive herbal remedy for various gastrointestinal conditions, particularly those related to parasitic infections and digestive disorders.

Keywords: Vidangarishta, Vidanga, Therapeutic Actions.

INTRODUCTION

Historically, people have utilized herbal plants for their therapeutic properties to treat and prevent a wide range of illnesses. Ancient texts like the Bible and the Vedas already mention the use of herbal treatments and preparations created from medicinal plants.[1]

Vidangarista is a traditional Ayurvedic formulation that is used extensively in Indian traditional medicine due to its medicinal effects, especially in the treatment of gastrointestinal diseases and enhancement of digestive health.

Primarily made from Vidanga (*Embelia ribes*), this herb is recognized for its antibacterial, anthelmintic (anti-parasitic), and digestive qualities. Vidanga (*Embelia ribes*), a plant prized for its strong anthelmintic (anti-parasitic) qualities, is the main component of Vidangarista.

In Ayurveda, vidanga is often used to treat intestinal worm infestations, including roundworm and tapeworm infections. These parasites are successfully paralyzed by its bioactive chemicals, which also drive them out of the body and stop them from returning. Vidanga is recognized to enhance digestion, lessen flatulence, and support general gastrointestinal health in addition to its antiparasitic properties.[2-4]

The product is an arista, a kind of natural fermentation-based Ayurvedic liquid preparation that increases its potency and bioavailability.[5]

In Ayurveda, vidangarista is a well-known herbal tonic used to treat gastrointestinal disorders and support digestive health. Because of the potent antiparasitic properties of its main constituent, Vidangarista relieves indigestion and bloating by clearing the digestive tract and eliminating dangerous intestinal worms. Its preparation involves fermentation, which boosts its effectiveness and guarantees improved body absorption. Frequent usage of Vidangarista promotes intestinal health overall, enhances digestion, and increases appetite. It also acts as a digestive system detoxifier, which makes it a complete treatment for a range of gastrointestinal disorders.[6]

The Main Purposes of Vidangarista are as Follows:

- Eliminate intestinal worms: This mixture is quite successful in getting rid of parasitic worms like roundworms and tapeworms from the intestines.
- Boost digestion: It activates digestive enzymes, which facilitates improved food breakdown and nutritional absorption.
- Reduce flatulence and bloating: Vidangarista relieves bloating and discomfort in the abdomen by lowering the production of gas in the intestines.
- Stimulate appetite: It works as a tonic to increase appetite and metabolism in situations where there is a loss of appetite or poor digestion.
- Detoxify the digestive system: By cleaning the digestive tract, the formulation aids in the removal of toxins and the avoidance of dangerous material build-up.

Dosage and Administration: Vidangarista is liquid preparation consumed after meals. 15–30 ml liquid diluted with the equal volume of water for adults, it may be change according on the patient's age, health, and the symptoms. Consult any licensed Ayurvedic practitioner for details.[5]

Safety and Side Effects: Vidangarista is usually regarded as safe for most individuals. Diarrhoea or gastritis might be observed in prolonged or excessive use. Diabetes patient, pregnant women, should consult with ayurvedic practitioner before taking vidangarista.[5]

Preparation Process: The decoction is made by boiling the herbs in water and reduced to a specific amount by boiling it, and then filtered. Jaggery, and dhataki flowers are added in filtered decoction to start the fermentation process for a few days within a closed container. After that, the finished product is kept and purified for medical use. Depending on the manufacturer or the customary preparation technique used by a specific ayurvedic literature, this composition may differ slightly.[5]

Composition of Vidangarishta: According to the classical Ayurvedic text **"Ayurveda Sara Sangraha"**, **vidangarishta** contains

1. Vidanga (*Embelia Ribes*)
2. Pippalimoola (*Piper Longum*)
3. Rasna (*Pluchea Lanceolata*)
4. Kutaja (*Holarrhena Antidysentrica*)
5. Indrayava (*Holarrhena Antidysenteria*)
6. Patha (*Cissampelos Pareira*)
7. Elavaluka (*Prunus Avium*)
8. Amalaki (*Emblica Officinalis*)
9. Dhatki (*Woodfordia Fructicosa*)
10. Ela (*Amomum Subulatum*)
11. Tvapatra (*Cinnamomum Tamala*)
12. Tvak (*Cinnamomum Zeylanicum*)
13. Priyangu (*Callicarpa Macrophylla*)
14. Kanchanara (*Bauhunia Variegata*)
15. Lodhra (*Symplocos Racemosa*)
16. Shunthi (*Zingiber Officinale*)
17. Maricha (*Piper Nigrum*)
18. Guda [7]

Table 1: Ingredients of Vidangarishta: Botanical, Chemical, and Therapeutic Overview

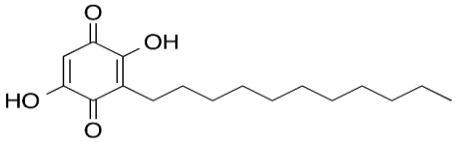
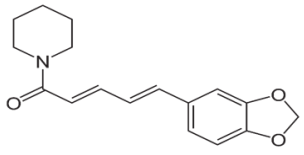
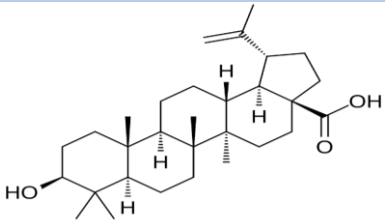
Ingredients	Botanical Name	English Name	Chemical Composition	Therapeutic Uses	Pharmacological Properties	Role in Vidangarishta	Ref
Vidanga	*Embelia Ribes*	False Black Pepper	Embelin, flavonoids, essential oils	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Amlapittanāśakaṃ Alleviates acid reflux Ājīrṇāśamakaṃ Aids digestion	Wound Healing, Antibacterial, Anthelmintic, Analgesic, Antioxidant, Antidiabetic, Antifungal, Anti-hyperlipidemic, Contraceptive, Anticonvulsant.	The key ingredient, Vidanga, has potent anthelmintic (anti-parasitic) properties and primarily used to expel intestinal worms. It also improves digestion and boosts metabolism.	8-12
Pippalimoola	*Piper Longum*	Indian Long Piper	Piperine, piperlongumine, essential oils	Vātaśāmakaṃ Reduces Vata dosha Kaphāśāmakaṃ Reduces Kapha dosha Pācanaśāmyam Enhances digestive power	Immunomodulatory, Hepatoprotective, Antibacterial, Antimicrobial, Anti-amoebic, Antidiabetic, Anti-tumor, Anti-snake venom, Anthelmintic.	This root enhances digestion by stimulating gastric secretions. It also helps in improving respiratory function and increasing bioavailability of other herbs.	13-15
Rasna	*Pluchea Lanceolata*	Scented Leave Bush	Flavonoids, essential oils, glycosides	Vātavikārśāmakaṃ Reduces Vata disorders Asthivātaśāmakaṃ Reduces joint pain	Anti-arthritic, Anti-inflammatory, Chemo preventive, Anticancer, Anti-oxidative, Immunosuppressive.	Rasna is helping to relieve joint pain, inflammation, and stiffness, which may also have an indirect impact on metabolism.	16-19
Kutaja	*Holarrhena Antidysentrica*	Kurchi	Alkaloids (e.g., conessine), saponins, glycosides	Dāhaśāmakaṃ Reduces burning sensation Ākarṣaṇaśāmakaṃ Treats dysentery and diarrhea	Neuroprotective, Acetylcholinesterase inhibitory, Antidiabetic, Antiurolithic, Antibacterial, Anti-inflammatory, Analgesic, Anti-malarial, Anti-diarrhoeal	Known for its strong anti-dysenteric and anti-diarrheal properties, it helps in managing gastrointestinal issues	21-25
Indrayava	*Holarrhena Antidysenteria*	Indian Willow	Alkaloids, saponins, glycosides	Ākarṣaṇaśāmakaṃ Treats dysentery Asādhaaraṇaśāmakaṃ General health tonic	Antidiarrheal, Antimicrobial, Anti-inflammatory, Anthelmintic, Antipyretic, Antiamoebic, Antioxidant, Hepatoprotective, Immunomodulatory.	Similar to Kutaja, Indrayava is used to treat digestive disturbances like diarrhoea and intestinal infections.	20-26

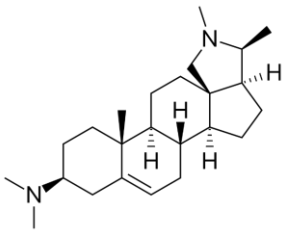
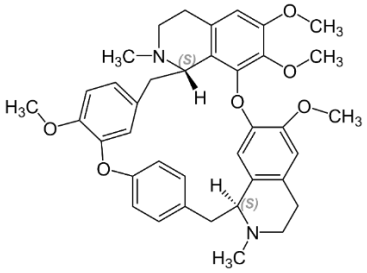
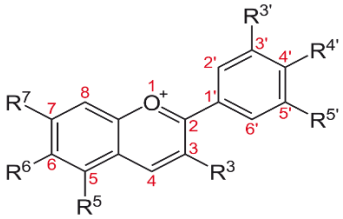
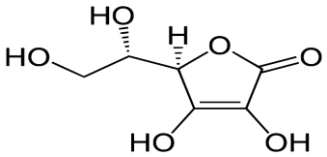
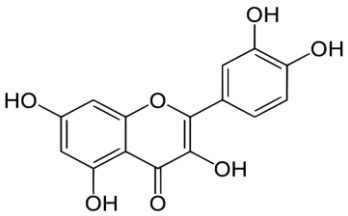
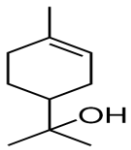
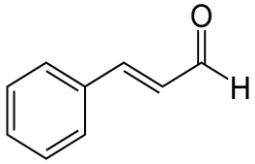
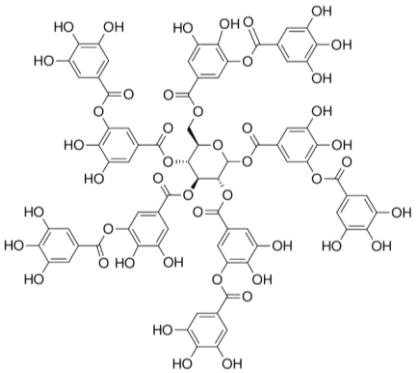
Patha	*Cissampelos Pareira*	Velvetleaf	Alkaloids (e.g., tinosporine, cissampeline), flavonoids, glycosides	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Amlapittanāśakaṃ Alleviates acid reflux	Anti-diabetic, Anti-anxiety, Anti-nociceptive, Anti-arthritic, Anti-fertility, Antioxidant, Anti-asthmatic, Anti-cancer, Anti-inflammatory, Antileukemic.	Patha has antimicrobial, digestive, and anti-inflammatory properties. It helps to remove toxins from the GIT	27,28
Elavaluka	*Prunus Avium*	Sweet Cherry	Anthocyanins, flavonoids, phenolic compounds	Raktśodhakaṃ Blood purifier Amlapittanāśakaṃ Alleviates acid reflux	Antioxidant, Anti-Hyperglycemic, Antigenotoxic, Anticancer, Antimicrobial, Neuroprotective	Elavaluka is a cooling and demulcent agent, used to balance Pitta and help in soothing inflammation of the digestive system.	29,30
Amalaki	*Emblica Officinalis*	Indian Gooseberry or Amla	Vitamin C, tannins, flavonoids, alkaloids	Rāsyanaṃ Rejuvenative Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Amlapittanāśakaṃ Alleviates acid reflux	Cardioprotective, Anti-ulcer, Antioxidant, Antipyretic, Analgesic, Antitussive, Gastroprotective, Antimutagenicity	Amalaki, a rich source of Vitamin C, is a powerful antioxidant that supports digestion, boosts immunity, and promotes detoxification. It helps to balance all three doshas—Vata, Pitta, and Kapha.	31-33
Dhatki	*Woodfordia Fructicosa*	Flame of the Forest	Flavonoids, tannins, essential oils	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Dāhaśāmakaṃ Reduces burning sensation	Antimicrobial, Hepatoprotective, Cardioprotective, Antioxidant, Antiulcer, Anti-fertility, Analgesic, Wound healing, Antihyperglycemic.	Dhatki is used for its fermenting properties in many Ayurvedic asava-arishta 's formulations,	34
Ela	*Amomum Subulatum*	Cardamom	Essential oils, flavonoids, terpenoids	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Pācanaśāmyam Enhances digestive power	Anti-inflammatory, As Antidote, Anti- ulcerogenic, Analgesic, Laxative, Anti-Depressant, Anti-Diarrhoeal, Anti-Carminative, Antioxidant, Antimicrobial, Hepatoprotection.	Known for its digestive, carminative, and antispasmodic properties, Ela helps to relieve bloating and indigestion while also promoting good appetite.	35
Tvapatra	*Cinnamomum Tamala*	Tejpatta or Bay Leaf	Essential oils, cinnamaldehyde, eugenol	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Pācanaśāmyam Enhances digestive power	Antimicrobial, Antidiabetic, Antioxidant, Hypolipidemic, Anticancer, Cardioprotective, Gastroprotective.	Tvapatra, is used for its carminative properties to relieve flatulence, improve digestion, and boost appetite.	36,37
Tvak	*Cinnamomum Zeylanicum*	Cinnamon or Ceylon Cinnamon	Essential oils, cinnamaldehyde, eugenol	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Pācanaśāmyam Enhances digestive power	Anti-HIV, Antianxiety, Antidepressant, Anti-Parkinson, Spasmolytic, Cardiovascular, Antidiabetic, Anticancer, Anti-inflammatory, Antioxidant.	It helps to improve digestion and stimulates the digestive fire (Agni). It also has antimicrobial properties.	38
Priyangu	*Callicarpa Macrophylla*	Large-leaved Beautyberry	Flavonoids, phenolic compounds, essential oils	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Raktśodhakaṃ Blood purifier	Antibacterial, Antidiabetic, Analgesic, Antipyretic, Anti-Arthritic, Antifungal, Anti-Inflammatory.	This herb is known for its cooling properties and is used to pacify the Pitta dosha, which in turn helps with inflammatory conditions and digestive disturbances.	39

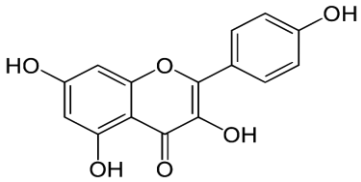
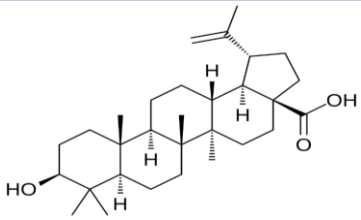
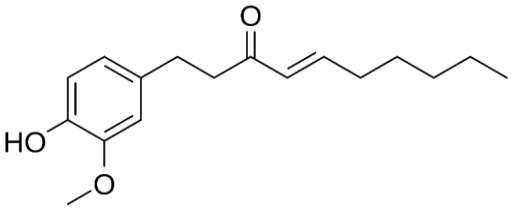
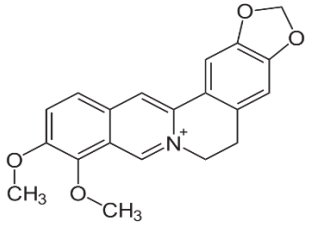
Kanchanara	*Bauhunia Variegata*	Orchid Tree or Purple Bauhinia	Flavonoids, glycosides, saponins	Vātaśāmakaṃ Reduces Vata dosha Kaphāśāmakaṃ Reduces Kapha dosha	Antioxidant, Anti-inflammatory, Antidiabetic, Anticancer, Immunomodulatory, Hypolipidemic, Nephroprotective, Hepatoprotective.	Kanchanara is beneficial for treating glandular swellings and tumors, and also aids in detoxification processes, supporting liver function.	40,41
Lodhra	*Symplocos Racemosa*	Lodhra Tree	Flavonoids, tannins, glycosides	Kaphāśāmakaṃ Reduces Kapha dosha Vātapittaśāmakaṃ Reduces Vata and Pitta doshas	Anti-acne, Analgesic, anti-inflammatory, Antioxidant, Antibacterial, Anticancer, Anthelmintic	Lodhra has astringent property and useful in treating inflammatory conditions related to the digestive and reproductive systems.	46
Shunthi	*Zingiber Officinale*	Ginger	Gingerol, shogaol, essential oils	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Pācanaśāmyam Enhances digestive power	Gastrointestinal relief, Anti-Inflammatory, hyperglycemic, Antioxidant, Antimicrobial, Anti-cancer, Anti-diabetic, Antipyretic, Hepato-protective.	Dry ginger enhances digestion, relieves nausea, and improves the absorption of nutrients. It also has anti-inflammatory properties.	42,43
Maricha	*Piper Nigrum*	Black Pepper	Piperine, essential oils, alkaloids	Vātapittaśāmakaṃ Reduces Vata and Pitta doshas Pācanaśāmyam Enhances digestive power	Antioxidant, Antibacterial, Antimicrobial, Anticancer, Cytotoxicity effect, Insecticidal effect, Antimutagenic, Antitumor, Antidiarrhoeal, Anti-platelet.	Black pepper stimulates digestion, helps relieve bloating, and enhances the bioavailability of other ingredients, making the formulation more effective.	44,45
Guda	Jaggery	--	--	--	--	Jaggery is used as a base for fermentation in Ayurvedic asavas and arishtas like Vidangarishta. It also provides a mild laxative effect and balances Vata and Pitta doshas.	5

Structure of Active Constituents

Table 2: Herbal Crude Drugs and Their Active Constituents: Structures and Key Compounds

Name of herbal crude drugs	Active Constituent	Structure of Active Constituents	
Vidanga (*Embelia ribes*)	Embelin		8
Pippalimoola (*Piper longum)*	Piperine		13
Rasna (*Pluchea lanceolata*)	Betulinic Acid		16

Kutaja & Indrayava (*Holarrhena antidysentrica*)	Conessine		20,21
Patha (*Cissampelos pareira*)	Tetrandrine		27
Elavaluka (*Prunus avium*)	Anthocyanins		29
Amalaki (*Emblica officinalis*)	Ascorbic Acid		31
Dhatki (*Woodfordia fructicosa*)	Quercetin		34
Ela (*Amomum subulatum*)	Terpineol		35
Tvapatra & Tvak (*Cinnamomum tamala* & *Cinnamomum zeylanicum*)	Cinnamaldehyde		36,38
Priyangu (*Callicarpa macrophylla*)	Tannins		39

Kanchanara (*Bauhunia variegata*)	Kaempferol		40
Lodhra (*Symplocos racemosa*)	Betulin		46
Shunthi (*Zingiber officinale*)	Shogaol		42
Maricha (*Piper nigrum*)	Berberine		44

CONCLUSION

"The Traditional Healing Power of Vidangarishta" highlights the therapeutic benefits of Vidangarishta, particularly its effectiveness in treating gastrointestinal disorders, improving digestion, and expelling intestinal worms. Vidangarishta is a classical Ayurvedic formulation known for its bioavailability and potency, which is enhanced through natural fermentation. Its main ingredient, vidanga (*Embelia ribes*), is well-regarded for its antiparasitic and digestive properties. The preparation not only improves digestion and relieves bloating, but also detoxifies the digestive tract, making it a comprehensive remedy for gut health. However, it should be used with proper medical supervision to avoid side effects, and its dosage must be tailored to the individual's needs. In summary, Vidangarishta serves as a potent Ayurvedic remedy for maintaining gastrointestinal health and treating parasitic infections.

Source of Support: The author(s) received no financial support for the research, authorship, and/or publication of this article

Conflict of Interest: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

1. Biljana Bauer Petrovska Historical review of medicinal plants' usage; Pharmacogn Rev. 2012 Jan-Jun; 6(11): 1–5.
2. Kirtikar K., Basu B. *Indian Medicinal Plants.* Volume 2. International Book Distribution; Dehradun, India: 2006. pp. 1496–1497.
3. Nadkarni A. *Nadkarni's. Indian Materia Medica.* Volume 1. Popular Prakashan Pvt Ltd.; Mumbai, India: 2007. p. 478.
4. V. Sharma, Dev Nath Singh Gautam, Andrei-Flavius Radu, Tapan Behl, Simona Gabriela Bungau, and Cosmin Mihai Vesa Reviewing the Traditional/Modern Uses, Phytochemistry, Essential Oils/Extracts and Pharmacology of *Embelia ribes* Burm. Antioxidants (Basel). 2022 Jul; 11(7): 1359.
5. Praveen Kumar SV, Sandeep M, Kamal D, Nishanth BC, Megharaj HK, Prashith Kekuda TR, et al. Antibacterial and Anthelmintic activity of selected fermented Ayurvedic herbal formulations. Drug Invention Today 2010;2(7):347-348347-348.
6. Athira, R.N., Awasthi, V., Thamara, K. And Kumar, S., Pharmacological Potential of Polyherbal Ayurvedic Formulations–A Review. *Asian J Pharm Clin Res*, 2022;*15*(11):14-20.
7. Kuduple, S. Critical Study of Performance Management in Shree Baidyanath Ayurved Bhawan Private Limited, Nagpur. *Paridnya-The Mibm Research Journal*, 2013.
8. Wankhade, P.R., Gupta, R.D., Das, R.J., Awandekar, N.B. and Umekar, M.J. Review on pharmacological and

phytochemistry of Embelia ribes plant. *Int. J. Pharmacogn. Life Sci*, 2021;*2*:34-43.

9. Rout, S., Sahoo, G., Padhy, D., Mishra, U.N. and Prusty, A.K. Embelia ribes Burm F. (Vai Vidanga)- An Overview. *International Journal of Modern Agriculture*, 2021;*10*(2):4588-4594.
10. Rajasekharan, P.E. and Karpakal, S. Ethnopharmacological Uses of Embelia ribes Burm. f. *A Review. J. Pharm. Biol. Sci*, 2014;*9*:23-30.
11. Lal, B. and Mishra, N. Importance of Embelia ribes: An update. *International journal of pharmaceutical sciences and research*, 2013;*4*(10):3823.
12. Yadav, A. and Mohite, S. Phytochemical and Pharmacological Review of Embelia ribes. *Int J Sci Res Chemi*, 2020;*5*(5):57-62.
13. Longum Linn, O.P. and Micrometric, W., Pharmacognostic Evaluation of Pippali Mula (Root). 2022.
14. Tiwari, A., Mahadik, K.R. and Gabhe, S.Y. Piperine: A comprehensive review of methods of isolation, purification, and biological properties. *Medicine in Drug Discovery*, *7*, 2020. p.100027.
15. Grover, M. *Piper longum* (Pippalimool): A systematic review on the traditional and pharmacological properties of the plant. *World Journal of Pharmaceutical and Medical Research*, 2021;*7*(8):18-25.
16. Bhagwat, D.P., Kharya, M.D., Bani, S., Kaul, A., Kour, K., Chauhan, P.S., Suri, K.A. and Satti, N.K. Immunosuppressive properties of Pluchea lanceolata leaves. *Indian journal of pharmacology*, 2010;*42*(1):21-26.
17. Srivastava, V., Varma, N., Tandon, J.S. and Srimal, R.C. Anti-inflammatory activity of *Pluchea lanceolata*: isolation of an active principle. *International Journal of Crude Drug Research*, 1990;*28*(2):135-137.
18. Dinesh, K., Kumar, P., Naresh, R. and Shukla, G., Phytochemical analysis and invitro assays for antimicrobial activity of *Pluchea lanceolata* extract against multi drug resistant Vibrio cholerae. 2022.
19. Srivastava, P. and Shanker, K. Pluchea lanceolata (Rasana): Chemical and biological potential of Rasayana herb used in traditional system of medicine. *Fitoterapia*, 2012; *83*(8):1371-1385.
20. Jamadagni, P.S., Pawar, S.D., Jamadagni, S.B., Chougule, S., Gaidhani, S.N. and Murthy, S.N. Review of *Holarrhena antidysenterica* (L.) Wall. ex A. DC.: Pharmacognostic, pharmacological, and toxicological perspective. *Pharmacognosy reviews*, 2017;*11*(22):141-8.
21. Kumari, I., Chaudhary, G. and Kaurav, H. *Holarrhena antidysenterica* (Wall.) Kutaja: Medicinal Plant with High Steroidal Alkaloid Profile. *International Journal of Pharmacy and Biological Sciences*, 2021;*11*(2):125-134.
22. Tiwari, R., Khatri, C., Tyagi, L.K. and Tiwari, G. Expanded Therapeutic Applications of *Holarrhena antidysenterica*: A Review. *Combinatorial Chemistry & High Throughput Screening*, 2024;*27*(9):1257-1275.
23. Mohanty, S.P. and Rautaray, K.T., Pharmacognostical and phytochemical figures of Kutaja Veeja & Twak (*Holarrhena antidysenterica* Linn.): A textual review. 2022.
24. Mrinal, S. and Singh, N. A review on pharmacological aspects of *Holarrhena antidysenterica. Scholars Academic Journal of Pharmacy*, 2018;*7*(12):488-492.
25. Kumari, I., Chaudhary, G. and Kaurav, H. *Holarrhena antidysenterica* (Wall.) Kutaja: Medicinal Plant with High Steroidal Alkaloid Profile. *International Journal of Pharmacy and Biological Sciences*, 2021;*11*(2):125-134.
26. Panda, A.K., Das, D., Dixit, A.K. and Hazra, J. Effect of Indrayava (*Holarrhen a Antidysenterica* Seed) on Inpatient Uncomplicated Severe Hyperglycaemia: A Case Study. *J Homeop Ayurv Med*, 2013;*2*(126):2167-1206.
27. Singh, S.G., Nishteswar, K. and Patel, B.R., Therapeutic efficacy of Patha (*Cissampelos pareira* Linn.)-A Review through classical texts of Ayurveda. *Journal of Ayurveda and Integrated Medical Sciences*, 2016;*1*(03):92-110.
28. Wimpy, K., Sk, Y., Kumkum, M. and Manoj, G. Phytochemical and pharmacological review on *Cissampelo spareira*. *Indian J Pharm Pharmacol*, 2016;3:152-4.
29. Nunes, A.R., Gonçalves, A.C., Falcão, A., Alves, G. and Silva, L.R. *Prunus avium* L. (sweet cherry) by-products: A source of phenolic compounds with antioxidant and anti-hyperglycemic properties — A review. *Applied Sciences*, 2021;*11*(18):8516.
30. Hussain, S., Javed, M., Abid, M.A., Khan, M.A., Syed, S.K., Faizan, M. and Feroz, F. *Prunus avium* L.; Phytochemistry, nutritional and pharmacological review. *Advancements in Life Sciences*, 2021;*8*(4):307-314.
31. Jain, R., Pandey, R., Mahant, R.N. and Rathore, D.S. A review on medicinal importance of Emblica officinalis. *International journal of pharmaceutical sciences and research*, 2015.;*6*(1):72-8.
32. Bhandari, P.R. and Kamdod, M.A. *Emblica officinalis* (Amla): A review of potential therapeutic applications. *International Journal of Green Pharmacy (IJGP)*, 2012;*6*(4):50-56.
33. Khan, K.H. Roles of *Emblica officinalis* in medicine-A review. *Bot Res Int*, 2009;*2*(4):218-228.
34. Uday Muvel, U.M., Kishor Devre, K.D. and Ajay Raghuvanshi, A.R. A pharmacognostic and pharmacological overview on *Woodfordia fruticosa* Kurz, 2014.
35. Kumar Singhal, P., Gautam, G.K., Kumar, R. and Kumar, G. Review on *Amomum subulatum* and Elettaria Cardamomum with their Pharmacological Activity. *MAT J*, 2022;*4*:1-6.
36. Thakur, S. and Chaudhary, G. Review based upon ayurvedic and traditional uses of *Cinnamomum tamala* (Tejpatta). *Int J Pharm Sci Rev Res*, 2021;*68*(2):71-78.
37. Upadhyay, R.K. Therapeutic and pharmaceutical potential of *Cinnamomum tamala*. *Research Reviews: Pharmacy and Pharmaceutical Sciences*, 2017;*6*(3):18-28.
38. Kumar, S., Kumari, R. and Mishra, S. Pharmacological properties and their medicinal uses of Cinnamomum: a review. *Journal of Pharmacy and Pharmacology*, 2019;*71*(12):1735-1761.
39. Shankar, P.A., Bhavana, S., Manish, W.M., Kumar, P.N. and Ankush, J.D. *Callicarpa macrophylla*: a review of its phyto-chemistry, pharmacology, folklore claims and ayurvedic

studies. *Global Journal of Research on Medicinal Plants & Indigenous Medicine*, 2014;*3*(3):91-9.

40. Sharma, K., Kumar, V., Kumar, S., Sharma, R. and Mehta, C.M. *Bauhinia variegata*: a comprehensive review on bioactive compounds, health benefits and utilization. *Advances in Traditional Medicine*, 2021;*21*:645-653.

41. Gautam, K., Mehta, S., Verma, D., Devi, S., Sharma, S. and Sharma, R. *Bauhinia variegata*: A Review of the recent update on its Pharmacological and Phytochemical profile. *World Journal of Pharmaceutical Research*, 2023; *12*(14):678-689.

42. Dhanik, J., Arya, N. and Nand, V. A review on Zingiber officinale. *Journal of Pharmacognosy and phytochemistry*, 2017;*6*(3):174-184.

43. Abdalla, W.E. and Abdallah, E.M. Antibacterial activity of ginger (*Zingiber officinale* Rosc.) rhizome: A mini review. *Int. J. Pharmacogn. Chin. Med*, 2018;*2*(4):000142.

44. Srivastava, A.K. and Singh, V.K. Biological action of *Piper nigrum*-the king of spices. *European Journal of biological research*, 2017;*7*(3):223-233.

45. Ashokkumar, K., Murugan, M., Dhanya, M.K., Pandian, A. and Warkentin, T.D. Phytochemistry and therapeutic potential of black pepper [*Piper nigrum* (L.)] essential oil and piperine: A review. *Clinical Phytoscience*, 2021;*7*(1):52-8.

46. Acharya, N., Acharya, S., Shah, U., Shah, R. and Hingorani, L., A comprehensive analysis on *Symplocos racemosa* Roxb.: Traditional uses, botany, phytochemistry and pharmacological activities. *Journal of ethnopharmacology*, 2016;181:236-251.

For any questions related to this article, please reach us at: globalresearchonline@rediffmail.com

New manuscripts for publication can be submitted at: submit@globalresearchonline.net and submit_ijpsrr@rediffmail.com