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Review Article

# Antimicrobial Potential of Polyherbal Formulation Plashbijadi Churna -**A Review**

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#### **ABSTRACT**

Plants have been a source of herbal remedies throughout the history of mankind. Various medicinal plants have been used for years in daily life to treat diseases all over the world. Nature has provided a complete store house of remedies to cure all ailments of mankind. The natural or herbal remedies are still the backbone of medicines. These herbs or plants and their active ingredients are used in traditional herbal remedies. The easy availability, low cost and negligible side effects, natural products are popular in the nowadays in the world. Therefore antimicrobial potential of polyherbal formulation plashbijaadi churna mention in the text is taken for review. The authentic subject material has been reviewed from Ayurveda and modern medical literature. Different research and review article were searched in different journals to establish the antimicrobial potential of plashbijaadi churna.

Key words: Plashabija, antimicrobial, antibacterial, churna.

#### INTRODUCTION

Now a multiple drug day's resistance has developed due to the indiscriminate use of commercial antimicrobial drugs commonly used in the treatment of infectious disease. In addition to this problem, antibiotics are sometimes associated with adverse effects on the host hypersensitivity, including suppression and allergic reactions. Recently there is lots of attraction towards natural based herbs as an antimicrobial agent because of its ecofriendly and health

hazardless nature. [1,2,3,4] The traditional Indian systems of Ayurveda and Siddha medicines support the importance of medicinal plants to treat diseases. <sup>[5]</sup> In India 70% of populations are reported using traditional medicines for primary health care. [6] There are several reports on the antimicrobial activity of different herbal extracts in different regions of the world. [7] Therefore antimicrobial potential polyherbal formulaation plashbijadi churna mention in the text is taken for review. [8]

### METHOD OF PREPRATION PLASHBIJADI CHURNA

Following ingredients are used for the preparation of vidangadi churna [8]

S.No	Ingredients	Latin name	Family	Part used	Quantity
1	Plasha	Butea Monosperma	Fabaceae	seeds	1 part
2	Indrayava	Holarrhena antidysenterica	Apoynaceae	seeds	1 part
3	Vidanga	Embelia ribes Burn	Myrsinaceae	Fruit	1 part
4	Neema	Azadirachta indica	Meliaceae	seeds	1 part
5	Chirayata	Swerita chirata	Gentianaeace	Whole plant	1 part

The fine powder of all the ingridents are prepared separately and mixed together in the prescribed quantity

Ingredients of plashbijadi churna and their pharmacological and therapeutic properties

Illg	reulents of	piasnotjadi churna and their pharmacological and therap	eunc properties
S.no	Name of the	Rasadi panchak & ayurvedic properties	Pharmacological
	drug		properties
1	Plasha	Rasa – Katu, Kashaya,tikta	Anthelmintic [10,11,12]
		Guna- ushna,snigdha	
		Virya – Ushna,	
		Doshaghanta – tridoshnashak	
		Karma – agnedeepka,vrushya,saraka,helps asthisanghataj, gulma,arsha,krimi and all	
		gudaj vyadhi. <sup>[9]</sup>	
2	Indrayava	Rasa –katu,kashaya	Antibacterial [14,15]
		Guna- ruksha	
		Virya- sheeta	
		Rogaghanta- arsha,atisar,kushta,jwara	
		Karma- agnideepka,pachaka [13]	
3	Vidanga	Rasa – Katu, Kashaya.	Anthelmintic,[17]
		Guna – Laghu, Ruksha, Teekshna.	Antibacterial [18,19]
		Virya – Ushna, , Vipak – Katu,	Antifungal [20]
		Prabhava – Krimighna.Kaphavatashamaka.	_
		Dogaghnata - Shiroroga, apasmara, Agnimandya, Ajeerna, Krimidanta, Chhardi,	
		darshool, Adhmana, Vibandha, arsha, Krimiroga, Jeerna	
		pratishyay, Gandamala, mutrakruchchha.	
		Karma – Krimighna, kushthaghna, Shirovirechana, Nadibalya, Deepana, Pachana,	
		Anulomana, Garbh Nirodhaka, varnya, Rasayana [16]	
4	Neema	Rasa- katu,tikta	Antibacterial [22,23]
		Guna- laghu,snigdha,grahi	Antimicrobial
		Virya – sheeta	,Antifungal [24,25]
		Prabhava- Tridoshshamak,	Antiviral [26]
		Karma – shrama,trisha,kasa,vrana,chardi,	
		Kustha,hrullasa,aruchi passifier gulma,krimi	
		Rasa- katu,tikta Guna- laghu,snigdha,grahi Virya – sheeta Prabhava- Tridoshshamak, Karma – shrama,trisha,kasa,vrana,chardi, Kustha,hrullasa,aruchi passifier gulma,krimi nashak,prameha nashak [21] Rasa- katu,tikta Guna- laghu nuksha	
5	Chirayata	Rasa- katu,tikta	Antibacterial [28,29,30,31]
		Guila laglia, laksila	Antifungal [32,33]
		Veerya- sheeta	
		Prabhava- kapha,pitta nashak	
		Karma – saraka, sannipataj jwara,daha,	
		Trishna, kustha,jwara, vrana,kriminasak ,kasa	
		Shotha,vrananashak [27]	

## **CONCLUSION**

This review has presented collective knowledge on therapeutic. Pharmacological activities of plashbijaadi as, antibacterial, antihelmenthic, churna antifilarial, antiparasitic, antimicrobial .So this review will also facilitate to gain all about the past scientific research and the necessary information about the enormous pharmacological activities this formulation which helps the researcher to explore this formulations for the promotion of health.

#### **REFERENCES**

 Kannan P, Ramadevi S.R. and Waheeta Hopper. Antibacterial activity of Terminalia chebula fruit extract, African Journal of Microbiology Research. 2009, 3(4), 180-184.

- Golam M , Mostafa, Mahdia Rahman, Manjurul Karim M. Antimicobial Activity of Terminalia Chebula. Int.J.Med.Arom.Plants. 2011, 1(2).
- 3. Iqbal Ahmad, Zafar Mehmood, Faiz Mohammad. Screening of some Indian medicinal plants for their antimicrobial properties. Journal of Ethnopharmacology. 1998, 2(2), 183-193.
- 4. Jagtap A.G, Karkera S.G. Potential of the aqueous extract of Terminalia chebula as an anticaries agent. Journal of Ethnopharmacology, 1999, 68(1-3), 299-306
- Beusher, N. Bodinet, C. Neumann-Haefelin, D. Marston, A. and Hostettmann, K. Antiviral activity of African medicinal plants, J. Ethnophar-macol, 1994, 42, 101-109
- 6. Regulatory Status of Herbal Medicines- A Worldwide Review. WHO/TRM/98 I.
- 7. Jigna PAREKH, Darshana JADEJA, Sumitra CHANDA. Efficacy of Aqueous

- and Methanol Extracts of Some Medicinal Plants for Potential Antibacterial Activity. Turk J Biol 29 (2005) 203-210
- 8. AFI- Part 11, First English edition, published by the controller of publications civil lines, 110054 in 2000 under the Ministry of Health & Family Welfare Govt. of India Dept of ISM, page no 123.
- 9. Dr G.S. Pandey ,Bhavaprakash Nighantu Indian Metrica Medica of Sh. Bhava Mishra ,reprint 2004, published by Chaukhambha Bharti Academy ,Varanasi ,PP -536.
- Rai geeta et al, Butea monosperia (Lam) Kuntze. A Review, published in international research journal of pharmacy, June 2011
- 11. Ashish Mishra et al , A plant Review Butea monosperia (Lam) Kuntze published in Research Journal of Pharmaceutical, Biological and Chemical Sciences, janmarch 2012.
- 12. Fridaus et al, review on Butea monosperia published in international journal of research in pharmacy and chemistry 2012,2(4)
- 13. Dr G.S. Pandey ,Bhavaprakash Nighantu Indian Metrica Medica of Sh. Bhava Mishra ,reprint 2004, published by Chaukhambha Bharti Academy ,Varanasi ,PP -346.
- 14. Srivastava niraj et al , Antibacterial Activity of Kutaj (Holarrhena antidysenterica Linn.) in childhood diarrhea: In vitro study, published in the pharma innovation journal .
- 15. D.Kavitha et al, Antibacterial and antidiarrhoeal effects of alkaloids of Holarrhena antidysenterica WALL, published in the year December 2003.
- 16. Sharma, P.V. Prof.; Dravyaguna VijnanaVol.II (vegetable drugs),(2009); Chaukhamba Bharti, Academy, Varanasi; PP. 504-506.
- 17. Sharma, P.C., Yelne, M.B. and Dennis, T.J. (2002), Database on medicinal plants used in Ayurveda, Vol. (5), CCRAS, PP. 479-480.
- 18. Narang, G. D., Garg, L. C. and Mehta, R. C., Preliminary studies on antibacterial activity of E. ribes (myrisinaceae). J. Vet. Anim. Husbandry, 1961, 5(1), 73–79
- Chopra, Nayar and Chopra: Glossary of Indian medicinal plants. National Institute of Science Communication, CSIR New Delhi, 5th edition, 1999: 106-107.

- 20. Dr Satej Banne et al, Antimicrobial activity of vidanga churna By cup diffusion technique, published in pharmagene vol 3 issue 2.
- 21. Dr G.S. Pandey ,Bhavaprakash Nighantu Indian Metrica Medica of Sh. Bhava Mishra ,reprint 2004, published by Chaukhambha Bharti Academy ,Varanasi ,PP -329.
- 22. Yagoub, S.O., Al Safi, S.E.H., Ahmed, B., El Magbol, A.Z., (2005). Antimicrobial activity of some medicinal plants against some Gram positive, Gram negative and fungi. Retrieved February, 2009
- 23. Hala A. Mohammed et al , Antibacterial Activity of Azadirachta indica (Neema) leaf extract against bacterial pathogens in sudan , published in American journal of Research Communications, 2015: vol 3(5).
- 24. Ranjit R. Raut et al , Antimicrobial activity of azadirachta indica (Neem) against Pathogenic microorganism, published in journal of Academia and industrial Research. volume 3, Dec 2014.
- 25. Hala A. Mohammed et al, Antibacterial Activity of Azadirachta indica (Neema) leaf extract against bacterial pathogens in sudan, published in American journal of Research Communications, 2015: vol 3(5).
- 26. i.b.i.d
- 27. Dr G.S. Pandey ,Bhavaprakash Nighantu Indian Metrica Medica of Sh. Bhava Mishra ,reprint 2004, published by Chaukhambha Bharti Academy ,Varanasi ,PP -73.
- 28. Kabita nayak et al, antibacterial activity of different extracts of medicinal plant Swerita chirata in International Journal of Current Microbial and Applied Science (2015) 4 (7):889-897.
- 29. Asma Wazir et al , Antibacterial, Antifungal, Antioxidants activities of some medicinal plants published in Pak. J Pharm. Sci, Confrence Issue , vol 27, No.6 November 2014,pp 2145-2152.
- 30. Ahirwal laxmi et al , antimicrobial careening of methanol and aqueous extracts of Swerita chirata , published in international journal of pharmacy and pharmaceutical sciences vol 3
- 31. Lwin Lwin Nyein et al, antimicrobial efficacy of medicinal plant swerita chirata, published in the open cinfrence proceedings journal 2013, volume 4 Asma Wazir et al, Antibacterial, Antifungal, Antioxidants activities of some medicinal

- 32. Plants published in Pak. J Pharm. Sci, Confrence Issue, vol 27, No.6 November 2014,pp 2145-2152.
- 33. Ahirwal laxmi et al, antimicrobial careening of methanol and aqueous extracts of Swerita

chirata, published in international journal of pharmacy and pharmaceutical sciences vol 3

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