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Samangadikahshaya, A Polyherbal Formulation For Diarrhea

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Abstract

Diarrhea is a serious problem affecting 3-5 billion people per year around the world, especially children of below 5 years. 70% of the world population uses traditional and indigenous medicine for their primary health care. The facts of these indigenous remedies are passed verbally and sometimes as documents. As the global perspective of Ayurvedic medicine is increasing, interest regarding the scientific basis of their action is parallely increasing. Researchers are doing experiments to establish the relation between the claimed action and observed pharmacological activities. In the present article, an attempt was made to compile the antidiarrheal activity of Samangadikahshaya mentioned in the classics . The authentic subject material has been reviewed from Ayurveda and modern medical literature.

Keywords: Antidiarrheal, Kutaj, Polyherbal, Dhatki, Musta

Introduction

Diarrhea is defined as a disorder that is characterized by the discharge of semi-solid or watery fecal matter from the bowel three or more times in a day[1]. Diarrhea is one of the leading causes of morbidity and mortality in developing countries, especially for children under the age of five[2]. It remains one of the major health threats to populations in the tropical and subtropical poor countries. In developing countries, the majority of people living in rural areas almost exclusively use traditional medicines in treating all sorts of diseases including diarrhea.[3] Antibiotic resistance has become a global concern [4]. Although some effective drugs are available around the world, searching for an anti-diarrheal traditional herbal medicine is still encouraged by the World Health Organization (WHO) because of its safety and availability[5]. Samangadikahshaya possessess antidiarrheal properties mentioned in the text.[6]

Method of prepration of Samangadikahshaya [7]

Following ingredients are used for the preparation of Samangadikahshaya

S.No	Ingredients	Latin name	Family	Part used	Quantity
1	Manjishtha	*Rubia cordifolia*	*Rubiaceae*	Rt.	1 part
2	Ateesa	*Aconitum heterophyllum*	*Ranunculaceae*	Rt.	1 part
3	Musta	*Cyperus rotundus*	*Cyperaceae*	Rz.	1 part
4	Shunthi	*Zingiber officinale*	*Zingiberaceae*	*Rz.*	1 part
5	Netrabala	*Pavonia odorata*	*Malvaceae*	*Rt*	1 part
6	Dhatki	*Woodfordia fruticosa*	*Lythraceae*	Fl.	1 part
7	Kutaj	*Holarrhena antidysenterica*	*Apoynaceae*	St. bk.	1 part
8	Indrayava	*Holarrhena antidysenterica*	*Apoynaceae*	seeds	1 part
9	Bilva	*Aegle marmelos*	*Rutaceae*	Fr.P	1 part

Rt.- root, St.bk.- stem bark , Fr. P- fruit pulp, Rz.- rhizome

The coarse powder of all the ingredients are prepared separately and mixed together in the prescribed quantity. It is administered in the form of decoction as prescribed in the Ayurveda classics [8].

Ingredients of Samangadikahshaya and their pharmacological and therapeutic properties

S.No.	Name of the drug	Rasadi panchak & Ayurvedic properties	Pharmacological properties
1	Manjishtha	***Rasa*** *–madhura,tikta,kashaya* ***Guna-*** *ushna,guru* ***Virya-*** *ushna* ***Rogaghanta-*** *atisara,ama,visha,raktaatisara,kustha,visarpa, prameha* [9]	Antidiarrheal[10,]
2	Ateesa	***Rasa*** *–katu,tikta* ***Guna-*** *ushna*	Antidiarrheal[12,]

		Virya- *ushna* ***Rogaghanta***- *atisara,ama,visha,vamana,krimiroga* ***Karma***- *agnideepka,pachaka*[11]	
3	Musta	***Rasa*** *– katu,tikta,kashaya* ***Virya***- *sheeta* ***Rogaghanta***- *jwara,aruchi,trisha,kapha pitta nashak krimihar* ***Karma***- *agnideepka,pachaka,grahi,swedajanaka*[13]	Antidiarrheal [14] Antispasmodic [15]
4	Shunthi	***Rasa*** *- Katu* ***Guna*** *- Laghu, Snigdha (Shunthi), guru, Ruksha, Teekshna Ardraka).* ***Virya*** *- Ushna,* ***,Vipak*** *- Katu (Ardraka), Madhur(Shunthi),* ***Doshaghnata*** *-* *Kaphavatashamak,* ***Rogaghnata*** *– Amavata, Aruchi,Chhardi,agnimandya,Koshthavata, sheetpitta, Kasa, Shwasa, pratishyay.* ***Karma*** *- Shothahara, vednasthapana, Nadiuttejak, rochana, Dipan, Pachana, vatashamak, Triptighna, vatanulomak, Grahi, Bhedana,kaphahara, Shwasahara, vrishya.*[16]	Hypo-lipidaemic,[17] Antidiarrheal[18], Antibacterial[19]
5	Netrabala	***Guna***- *laghu,ruksha* ***Virya***- *sheeta*	Antibacterial[21] Antidiarrheal[22]

		Rogaghanta- *atisara,ama aruchi,hrudaroga,,visaprpa,jwara* ***Karma***- *agnideepaka,pachaka*[20]	
6	Dhatki	***Rasa*** *–kashaya,katu* ***Guna***- *laghu* ***Virya***- *sheeta* ***Rogaghanta***- *atisara,raktapita, visha,krimi,visaprpa,arsha* ***Karma***- *mrudukaraka,sangrahi*[23]	Antiinflammatory[24,25,26,27,28] Antibacterial [29,30] Antidiarrheal[31]
7	Kutaj	***Rasa*** *–katu,kashaya* ***Guna***- *ruksha* ***Virya***- *sheeta* ***Rogaghanta***- *arsha,atisar,kushta,jwara* ***Karma***- *agnideepka,pachaka*[32]	Antidiarrheal[33,34,35] Antibacterial [36,37]
8	Indrayava	***Rasa*** *–katu,kashaya* ***Guna***- *ruksha* ***Virya***- *sheeta* ***Rogaghanta***- *arsha,atisar,kushta,jwara* ***Karma***- *agnideepka,pachaka*[38]	Antibacterial [39,40] Antidiarrheal[41]
9	Bilva	***Rasa*** *–katu,tikta,kashaya* ***Guna***- *snigdha,ushna* ***Virya***- *ushna* ***Rogaghanta***- *atisara,pravahika,grahni, Madumeha,karna roga,vata roga, kamla,arsha,shotha,jwara* ***Karma***- *agnideepka,pachaka,grahi*[42]	Antidiarrheal[43,44,45] Antibacterial [46] Antiinflammatory[47]

Discussion

Holarrhena antidysenterica is also effective in treating multi-drug resistant Salmonella infection, which is an important cause of severe enteric diseases worldwide[48]. Most ingredients have *katu, tikta, kashaya rasa* ,and *Kashaya* dominant drugs can be incorporated in the subsequent phases

which facilitates for Shoshana (absorption) of liquefied or detoxified, a state produced by Tikta Rasa and Katu Rasa[49].Manjishtha have antidiarrheal effect.[50] *Musta* has produced its antidiarrhoeal effect through decreasing intestinal secretions and antispasmodic effect by inhibiting the intestinal motility.[51] *Z. officinale* decoction also affected host cell metabolism as seen by the reduction in colonization to HEp-2 cells of *E. coli* B170, *E. coli* E134 and that of *S. flexneri* in the HEp-2 pre-incubation protocol. Thus the results demonstrate that the *Z. officinale* decoction probably affects both bacterial and host cell metabolism to exhibit its antidiarrhoeal action.[52] *Netrabala* has shown the antimicrobial activity.[53] Kutaj beej extract on gram positive and gram negative bacteria at different concentration by disc diffusion method was determined to assess their antimicrobial effect.[54] The crude extract of *Bilwa* has shown antioxidant[55], effective in experimental models of irritable bowel syndrome and physiological diarrhoea[56,57]

Conclusion

Pharmacological activities of ingredients of *Samangadikahshaya* has shown its use as, anitdiarrheal, antimicrobial,antibacterial,anti-inflammatory and antispasmodic qualities .So this review helps the researcher to explore this formulations for pharmacological activities of the *Samangadikahshaya*

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