



## LAGHUGANGADHARA CHURNA, A POLYHERBAL FORMULATION FOR DIARRHEA – A REVIEW

<sup>1</sup>\*Dr. Dinesh Gupta, <sup>2</sup>Dr. Sohan Lal Saini <sup>3</sup>Dr. Titiksha Sharma,

<sup>1</sup>Assisitant Professor, Dept of Rasashastra & Bhaishya Kalpana Jammu Institue of Ayurveda & Research, Nardani Jammu, J&K.

<sup>2</sup>Associate professor, Dept of Rasashastra & Bhaishya Kalpana S.S.S.B Ayurvedic College Ki Renwal, Jaipur, Rajasthan.

<sup>3</sup>Consultant Ayurveda, Sri Sri Ayurveda Jammu, J&K.

**\*Corresponding Author: Dr. Dinesh Gupta**

Assisitant Professor, Dept of Rasashastra & Bhaishya Kalpana Jammu Institue of Ayurveda & Research, Nardani Jammu, J&K.

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### ABSTRACT

Herbal medicines are significant and reliable sources for treating various infectious and non infectious diseases. It is well known that infectious diseases account for high proportion of health problem, especially in developing countries. Microorganism has developed resistance to many antibiotics and this have created immense clinical problem in the treatment of infectious disease. Laghugangadhara Churna a polyherbal formulation which are known to be antidiarrheal. The clinical manifestations of Atisara are similar to 'Diarrhoea' in modern medicine which is treated with specific Antibiotics and Antispasmodics. After reviewing the properties of the Laghugangadhara Churna, we can conclude that it possesses anti diarrheal properties and this look promising in the treatment of diarrhea.

**KEYWORDS:** Polyherbal, diarrhea, *musta*, *kutaj*.

### INTRODUCTION

Diarrheal disease is one of the main causes of the high mortality rate in developing countries, particularly among children under the age of five.<sup>[1]</sup> Diarrhea is most common in crowded living conditions coupled with poor hygiene and malnutrition.<sup>[2]</sup> Thus, it is important to identify and evaluate natural drugs that can be used as alternatives to commonly used antidiarrheal drugs, which are often accompanied by adverse effects such as addiction and constipation.<sup>[3]</sup> Consequently, much research is now being devoted to the discovery of new antidiarrheal compounds isolated from natural products.

In some cases, these compounds may be more specific and less toxic than those obtained by synthesis. Numerous plants from all continents have traditionally been used in the treatment of diarrheal disease.<sup>[4]</sup> According to World Health Organization (WHO) about 80% of the World's population depends mainly on traditional medicine and the use of plant extracts are involved in these traditional treatments,<sup>[5]</sup> mainly due to the economic viability, accessibility and ancestral experience.<sup>[6]</sup> Laghugangadhara Churna possessess antidiarrheal properties mentioned in the text.<sup>[7]</sup>

### Method of prepration Laghugangadhara churna<sup>[8]</sup>

Following ingredients are used for the preparation of *Laghugangadhara Churna*

S. No.	Ingredients	Latin name	Family	Part used	Quantity
1	Musta	<i>Cyperus rotundus</i>	<i>Cyperaceae</i>	Rz.	1 part
2	Indrayava	<i>Holarrhena antidysenterica</i>	<i>Apocynaceae</i>	Sd	1 part
3	Bilva	<i>Aegle marmelos</i>	<i>Rutaceae</i>	Fr.P	1 part
4	Lodhra	<i>Symplocos racemosa</i>	<i>Symploeaceae</i>	St. bk.	1 part
5	Mocharasa	<i>Boswellia serrata</i>	<i>Burseraceae</i>	Exd	1 part
6	Dhatki	<i>Woodfordia fruticosa</i>	<i>Lythraceae</i>	Fl.	1 part

Rz.- rhizome, Sd.-seeds, Fr. P- fruit pulp, St.bk.- stem bark, exd- exudates, Fl- Flower

The fine powders of all the ingredients are prepared separately and mixed together in the prescribed quantity.

Ingredients of Laghugangadhara Churna and their pharmacological and therapeutic properties.

S.no.	Name of the drug	Rasadi panchak and Ayurvedic properties	Pharmacological properties
1.	Musta	<b>Rasa</b> – katu, tikta, kashaya <b>Virya</b> - sheeta <b>Rogaghanta</b> - jwara, aruchi, trisha, kapha pitta nashak krimihar <b>Karma</b> - agnideepka, pachaka, grahi, swedajanaka <sup>[9]</sup>	Antidiarrheal <sup>[10]</sup> Antispasmodic <sup>[11]</sup>
2.	Indrayava	<b>Rasa</b> –katu, kashaya <b>Guna</b> - ruksha <b>Virya</b> - sheeta <b>Rogaghanta</b> - arsha, atisar, kushta, jwara <b>Karma</b> - agnideepka, pachaka <sup>[12]</sup>	Antidiarrheal <sup>[13,14,15]</sup> Antibacterial <sup>[16,17]</sup>
3.	Bilva	<b>Rasa</b> –katu, tikta, kashaya <b>Guna</b> - snigdha, ushna <b>Virya</b> - ushna <b>Rogaghanta</b> - atisara, pravahika, grahni, Madumeha, karna roga, vata roga, kamlā, arsha, shotha, jwara <b>Karma</b> - agnideepka, pachaka, grahi <sup>[18]</sup>	Antidiarrheal <sup>[19,20,21]</sup> Antibacterial <sup>[22]</sup> Antiinflammatory <sup>[23]</sup>
4.	Lodhra	<b>Rasa</b> –kashaya <b>Guna</b> - laghu, ruksha <b>Virya</b> - sheeta <b>Rogaghanta</b> : shotha, vana, netrabhishyanda, karnasrava, atisara, jwara <b>Karma</b> - shulahara, kusthaghana, chakshushya, Varnaropana <sup>[24]</sup>	Antimicrobial <sup>[25]</sup> Antiinflammatory <sup>[26,27]</sup> Antibacterial <sup>[28,29]</sup> Anti helminthic <sup>[30,31]</sup> Antidiarrheal <sup>[32]</sup>
5.	Mocharasa	<b>Rasa</b> –kashaya <b>Guna</b> - sheeta <b>Virya</b> - sheeta <b>Rogaghanta</b> - atisara, mukharoga, mutrvikar, arsha, kushtha, vana <b>Karma</b> - pushtikarka <sup>[33]</sup>	Antimicrobial <sup>[34]</sup> Antidiarrheal <sup>[35]</sup>
6.	Dhatki	<b>Rasa</b> –kashaya, katu <b>Guna</b> - laghu <b>Virya</b> - sheeta <b>Rogaghanta</b> - atisara, raktapita, visha, krimi, visaprrpa, arsha <b>Karma</b> - mrudukaraka, sangrahi <sup>[36]</sup>	Antiinflammatory <sup>[37,38,39,40,41]</sup> Antibacterial <sup>[42,43]</sup>

## DISCUSSION

*Musta* has produced its antidiarrhoeal effect through decreasing intestinal secretions and antispasmodic effect by inhibiting the intestinal motility.<sup>[44]</sup> Kutaj beej extract on gram positive and gram negative bacteria at different concentration by disc diffusion method was determined to assess their antimicrobial effect.<sup>[45]</sup> The crude extract of *Bilwa* has shown antioxidant,<sup>[46]</sup> effective in experimental models of irritable bowel syndrome and physiological diarrhoea<sup>[47,48]</sup> 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<sup>[49]</sup> Scientific studies have shown that *lodhra* has an inhibitory effect on growth of *micrococcus Pyogenes var. aureus*, *E.coli*, enteric groups of micro organisms.<sup>[50]</sup>

## CONCLUSION

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

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