



EXPLORING THE THERAPEUTIC POTENTIAL OF *SHREERASADI CHURNA* IN *BALATISARA*: A REVIEW OF AYURVEDIC LITERATURE

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ABSTRACT

Diarrhoea is defined as loose watery stools in ancient *Samhitas*. It can be associated with *Atisara*. *Ayurveda* defines *Atisara* as "gudenā bahudrava-srāvaṃ punaḥ punaḥ pravartate | sa atisāra iti jñeyah ||" which means *Ati* (excessive) *Saranam* (flow) of loose watery stool. *Balatisara* is term referring to diarrhoea in children. Main culprits for *Atisara* are *Vata* and *Ama*. Vitiating *Apan Vata* and *Ama* along with *dushti* of *Annavaha*, *Udakvaha* and *Purishvaha Srotas* resulting in loose watery stools. Modern science is continuously developing new dimensions in the field of investigation and management. It is also mentioned in *Ayurveda* to protect the health of an individual and simultaneously cure the disease. The synthetic medicines which are being used today lead to lots of side effects. In case of children, we have to take special care to prevent the indiscriminate use of synthetic medicines. On the other hand, the use of antibiotics also develop resistance against various strains which is undesirable. Hence the present world is in search for a suitable alternative. Many compositions are mentioned in ayurvedic texts to treat *Balatisara* of which one compound described in *Yogratnakar* named as '*Shreerasadi Churna*' can be used to treat *Balatisara*. This review aims to describe mode of action of '*Shreerasadi Churna*' in *Balatisara*.

KEYWORDS : *Balatisara*, Diarrhoea, *Vata*, *Ama*, *Ayurved*, Loose watery stool.

INTRODUCTION:

Harita Samhita mentioned term '*Balatisara*' which means diarrhoea in children.¹ It is specifically not mentioned in *Brihatrayi* while some references are found in *Laghutrayi*. There is no detailed explanation given about *Balatisara* in ayurvedic texts. However, *Kaumarabhritya tantra* mentions a disorder diarrhoea, which is a major symptom from ayurvedic literature. It is mentioned primarily as symptoms of *Dhantodbhadjanya atisara*, *Ksheeralasaka*, *Vyadhifakka*, *Revati* and *Putana Balgraha*.

There is difference between etiological factors but *samprapti* of *atisara* may be same for adults and children. *Balatisara* is one of the main causes of malnutrition, increased mortality and mortality in children.² *Vednadhyay* of *Kashyap Samhita Sutrasthan* describe *purvaroopa* of *atisara*.

Modern science states that diarrhoeal disease rank among 'top three' causes of death in paediatric population. Globally, approximately 4.5 million deaths occur as result of diarrhoeal disease every year. On an average a child suffers from around 12 episodes of diarrhoea, 4 such episodes occurring during the very infancy (first year).³

Treatments are mentioned in different ayurvedic texts. *Yogratnakar* balrog referenced describes the efficacy of '*Shreerasadi Churna*' in diarrhoea in children. The main constituents are *Ral* (*Shorea Robusta*) and *Dhataki* (*Woodfordia fruticosa*) flowers with *Anupana* of *Madhu* (*Makshika*).⁴ The drugs used in this formulation are budget friendly and authentically available, and can be afforded by everyone in the society.

MATERIAL AND METHODS

A comprehensive review methodology was adopted to explore the therapeutic applications of *Shreerasadi Churna* in the management of *Balatisara* as described in Ayurvedic literature. The following procedures were systematically undertaken:

Literature Sources: Extensive searches were carried out using classical Ayurvedic texts such as *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and relevant commentaries, along with peer-reviewed modern research articles, dissertations, and reputed electronic databases covering Ayurveda and pharmaceutical sciences.

Search Strategy: Literature was identified using keywords including "*Shreerasadi Churna*" "*Balatisara*" "*Ayurvedic formulations*" and "*Ayurveda diarrhea management*." Both English and Sanskrit sources were considered based on relevance and authenticity.

Selection Criteria: Texts and articles were included if they provided explicit references to the ingredients, preparation, pharmacodynamics, or clinical studies related to *Shreerasadi Churna* or addressed its use in

Balatisara. Exclusion criteria involved sources lacking scientific rigor or classical authenticity.

Data Extraction and Synthesis: Relevant information regarding the composition, pharmacological actions, therapeutic indications, mechanisms, and clinical or experimental evidence was systematically compiled and analyzed. Comparative evaluation was employed to assess consistencies and gaps among classical descriptions and modern interpretations.

Review Process: The synthesis process included critical analysis with focus on bridging traditional Ayurvedic perspectives with available contemporary research, ensuring a holistic understanding of *Shreerasadi Churna*'s therapeutic potential in pediatric diarrhoea.

RESULTS

Diarrhoea

Diarrhoea is defined as a change in consistency and frequency of stools, i.e. liquid or watery stools, that occur >3 times a day.⁵ Broadly it is classified as acute, persistent and chronic.

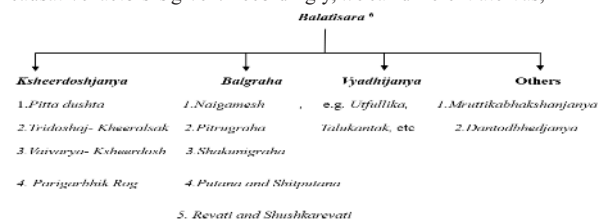
Table 1

Acute Diarrhoea	Persistent Diarrhoea	Chronic Diarrhoea
Liquid or watery stools, that occur >3 times a day. In the vast majority of cases, these acute episodes subside within 7 days	An episode of diarrhoea of presumed infectious aetiology, which starts acutely but lasts for more than 14 days.	It is defined as an insidious onset diarrhoea of >2 weeks duration in children and >4 weeks in adults.

Persistent diarrhoea should not be confused with chronic diarrhoea which has a prolonged duration but an insidious onset and includes conditions causing malabsorption.

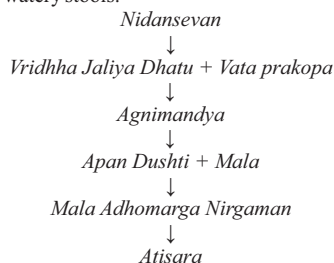
Atisara:

Diarrhoea in children known as *Balatisara*. Even if it is not specifically mentioned in contemporary texts but complete description about causative factors is given. Accordingly, we can differentiate it as,



SAMPRAPTI

According to *Aacharya Sushrut* vitiated *vata* along with increased *Jaliya dhatu* (e.g. *Rasa*, *Mutra*, *Sweda*, *Mala*, etc.) causes diminution of digestive fire (*Agnimandya*) results in *dushti* of *apan vayu* with *mala* results in loose watery stools.⁷

**Shreerasadi Churna**

“*lodhreṇa pippalī bālā bālakātisṛtau hitaḥ | śrīraso māksikayuto dhātakīkusumaiḥ samam ||*” (*Bhaishajya Ratnavali*, *Atisāra Chikitsa Adhyaya*)

The main constituents are *Ral* (*Shorea Robusta*) and *Dhataki* (*Woodfordia fruticosa*) flowers. Both the ingredients of this formulation have the properties of *Kashaya rasa* (astringent taste), are cold in potency (*sheeta virya*), and they alleviate *kapha* and *pitta dosha*. Besides this they have the properties of *sthambhan*, *agnideepan* and *pachan*. The exact mode of action of these drugs are been mentioned below in table 2, 3, 4 & 5.

Ral (Shorea Robusta)

It is a resin form extracted from *Sala* (*Shorea Robusta*) plant. *Sala* is mentioned as *Vedanasthapana*, *Kashaya Skandha* in *Charak Samhita*, *Sarsaradi* and *Rodhradi gana* in *Sushrut Samhita*, *Asanadi*, *Rodhradi* and *Vedanasthapana gana* in *Ashtang Sangraha*, *Chandanadi Varga* in *Dhanvantari Nighantu*, *Oshadhi Varga* in *Kaiyadeva Nighantu*, *Vataadi Varga* in *Bhava Prakasha Nighantu*, and *Chandanadi Varga* in *Raj Nighantu*.

Table 2 - Pharmacological Properties, Karma, Chemical Constituents And Effect And Mode Of Action Of Ral (Shorea Robusta)

Pharmacological Properties ⁸	Karma ⁹	Chemical Constituents	Effect and Mode of Action
<i>Rasa – Kashaya, Madhura</i>	<i>Vata-pitta-kapha hara,</i>	Triterpenoids (e.g. beta-amyrin, lupeol)	Anti-inflammatory action by inhibiting prostaglandin synthesis, reduces intestinal irritation. ¹⁰
<i>Guna – Ruksha, Ushna</i>	Stambhana, <i>Vranaropan, Vishaghna, Bhagnasandhan kara,</i>		
<i>Virya – Shita</i>	<i>Varnya,</i>	Phenolics (e.g. ferulic acid)	Protects epithelial lining from oxidative damage and provide mucosal protection. ¹¹
<i>Vipaka – Katu</i>	Grahi, <i>Krimighna, Kandughna</i>		
		Resin acids (e.g. salarolic acid)	Astringent effect contracts gut mucosa and anti-secretory action reduces fluid secretion in intestines. ¹²

Table 4²¹ – Pharmacological properties of Madhu (Makshika) according to various Acharyas.

	<i>Charaka Samhita sutra sthana 27/245</i>	<i>Sushruta Samhita sutra sthana 45/132</i>	<i>Astanga Hridaya sutra sthana 5/52</i>	<i>Astanga Sangraha sutra sthana 6/92,95</i>	<i>Madanapal Nighantu Ikshukadi varga 9/25-27</i>	<i>Kaiyadeva Nighantu Aushadi varga /175-178</i>	<i>Bhavapraksha Nighantu Madhu varga/ 2-5</i>
Rasa	Madhura, Kashaya	Madhura	Madhura, Kashaya	Madhura, Kashaya	-	Madhura,	Madhura
Anurasa	-	Kashaya	-	-	-	Kashaya	Kashaya
Guna	Guru Ruksha	Laghu, Ruksha, Picchila	Ruksha	Guru Ruksha	Laghu, Ruksha, Vishad	Laghu, Ruksha, Vishad, Sukshma	Laghu, Ruksha, Vishad, Sukshma

		Abietic acid and Diterpenes	Antimicrobial action disrupts bacterial membranes inhibits bacterial toxin production. ¹³
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Dhataki (Woodfordia fruticosa)

Dhataki is mainly emphasized in the ancient *Ayurvedic* texts as one of the most important fermentation products. *Acharya Charaka* has mentioned it in *Purishasangrahaniya mahakashaya*, *Acharya Sushruta* and *Acharya Vagbhata* in *Priyavambasthadi gana* where its property is been mentioned as '*Pakwatisaranashani*'. In various *nighantus* it has been mentioned to be useful in treating *Atisara* (diarrhea). In *Dhanvantari Nighantu* we get the property of *dhataki* as '*Atisarahara*', in *Shodhala Nighantu* as '*Atisaranashani*', in *Kaiyadeva Nighantu* as '*Atisaravinashanam*', in *Bhavaprakasha Nighantu* as '*Atisarajit*', in *Raja Nighantu* as '*Atisaranashani*'.

Table 3 - Pharmacological Properties, Karma, Chemical Constituents and Effect and Mode of Action of Dhataki (Woodfordia fruticosa)

Pharmacological Properties ¹⁴	Karma ¹⁵	Chemical Constituents	Effect and Mode of Action
<i>Rasa – Kashaya, Katu</i>	<i>Kapha-pitta hara,</i>	Hecogenin	Gastro-protective effects, anti-inflammatory properties are indirectly beneficial in diarrhea. Anti-oxidant properties help combat oxidative stress that can lead to diarrhea. ¹⁶
<i>Guna – Laghu, ruksha</i>	<i>Madakari</i>		
<i>Virya – Shita</i>	Sangrahi	Kamperol 3- glucoside	Modulate the intestinal microbiota by increasing the abundance of beneficial bacteria and decreasing harmful ones. This improves overall gut health and reduce diarrhea. ¹⁷
<i>Vipaka – Katu</i>		Naringenin - 7-O- glucoside	Regulate gastro-intestinal motility and potentially address diarrhea. It works by influencing gut microbia composition and improving the expression of proteins associated with smooth muscle contractions. ¹⁸
		Tannins (eg. Pyrogallol, hydrolysable types)	Astringent, anti-inflammatory and anti-microbial properties. They have anti-inflammatory effects on gastro-intestinal tract, potentially reducing inflammation and improving gut health. ¹⁹

Madhu (Makshika)

According to *Ayurveda*, *Madhu* (honey) is one of the best *Yogvahi* substance i.e., it carries the effects of the drugs added to it, without changing its own properties, which means it enhances the properties and actions of the substances with which it combines.²⁰ *Acharya Sushruta* said that honey has the properties like – *agni deepan*, *sangrahi*, *atisara prashamana* etc.

<i>Virya</i>	<i>Sheeta</i>	<i>Sheeta</i>	-	<i>Sheeta</i>	<i>Sheeta</i>	<i>Sheeta</i>	<i>Sheeta</i>
<i>Vipaka</i>	-	-	-	<i>Katu</i>	-	-	-
<i>Doshaghnata</i>	<i>Vata karak, Kapha pitta nashak</i>	<i>Tridosha nashakss</i>	<i>Vata karak, Kapha pitta nashak</i>	<i>Vata karak, Kapha pitta nashak</i>	<i>Alpa vatalam, Kapha pitta nashak</i>	<i>Vata karak, Kapha pitta nashak</i>	<i>Alpa vatalam, Kapha pitta nashak</i>

Table 5 – Mode of Action of Madhu (Makshika)

Anti-bacterial²²	Honey inhibits the growth of bacteria like-Salmonella, Shigella, E. coli which are common causes for diarrhoea. Honey shortens the duration of acute diarrhoea when added to ORS.
Anti-inflammatory²³	Help reduce the inflammation in the intestines which can be the cause of diarrhoea.
Prebiotic action²⁴	Honey contains oligosaccharides, which can act as prebiotic, promoting the growth of beneficial gut bacteria like Lactobacillus.
Water and electrolyte absorption²⁵	High sugar content can help the body absorb more water and electrolytes from the intestines which is important for preventing dehydration during diarrhoea.

DISCUSSION

The etiological and pathophysiological principles of *atisara* in children remain similar to those in adults. Even though a separate description of *Balatisara* is not found in classical *Ayurvedic* texts, we get specific treatment mentioned for it in various texts. Modern therapeutic approaches to diarrhoea mainly depend on anti-diarrheal and antibiotics. But these drugs make way for many of the side effects, and there will be an increased risk of resistance towards these drugs. Hence, safe, effective and affordable alternatives for these drugs are the urgent need for the society. Ayurvedic formulations such as *Shreerasadi churna* fulfil this requirement, especially in resource-limited settings. The components of *Shreerasadi churna* work synergistically to manage the symptoms and root cause of *Balatisara*. Each constituent contributes different yet complementary pharmacological actions. *Ral* provides *stambhana*, *grahi* and anti-inflammatory effects; *Dhataki* provides potent *atisarahara*, anti-microbial and anti-oxidant properties, whereas *Madhu* (honey), being *Yogavahi* in nature, enhances the drug efficacy and aids in treating diarrhea by improving gut flora and increasing electrolyte absorption. The constituent properties of *Kashaya rasa*, *sheeta virya* and *ruksha guna* further help in restoring gut integrity, reducing excessive intestinal motility and arresting fluid loss. The bioactive components, such as tannins, triterpenoids and flavonoids, etc., present in this formulation authenticate the classical textual claims with modern pharmacological evidence. Hence, *Shreerasadi churna* appears to be a holistic therapeutic choice, addressing both symptom management and physiological restoration.

CONCLUSION

Taking into consideration the increasing global concern over drug resistance and safety in children, the Ayurvedic approach to *Balatisara* provides a rational and effective solution. *Shreerasadi churna*, with its reliable ingredients and versatile actions, represents an ideal formulation for *Balatisara*. The combined effects of *Stambhana*, *Agnideepan*, *Grahi*, anti-inflammatory and anti-microbial action contributes to its safety, efficacy and affordability. Integrating such traditional formulations with modern clinical practice can enhance the quality of paediatric care. However, to establish wider acceptance of this formulation, further clinical studies and standardization protocols are essential. However, this review emphasizes the promising role of *Shreerasadi churna* in managing *Balatisara* effectively and safely.

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