



# **BALATISARA W.S.R TO CHILDHOOD DIARRHEA – AN AYURVEDIC REVIEW**

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## **ABSTRACT-**

Diarrheal diseases rank among the top three causes of death in pediatric population of the developing world. It is defined as the passage of three or more loose or watery stools per 24 hours, resulting in excessive loss of fluid and electrolytes in stools.

*Atisara* explained in *Ayurveda* can be correlated to diarrhea, where 'Ati' means excess and 'Saranam' means flow i.e., a condition where watery stools passed in excess. *Acharya Dalhan* on his commentary on *Sushruta Samhita* stated that passing of watery stools in increased quantity is a characteristic feature of *Atisara*.

The term *Balatisara* is found at first in *Harita Samhita* in context of treatment. The term *Balatisara* literary means *Atisara* occurring in children but it has not been mentioned as a separate entity in *Brihatrayi*. Though several scattered references of term *Balatisara* are found in context of treatment of *Atisara* in children in *Laghutrayi*, *Atisara* (Diarrhea) has been dealt in much detail in *Ayurvedic* literature, but not in term of children specially. However, in *Kaumarbhritya* certain specific disorder in which *Atisara* is major symptom have been mentioned in *Ayurvedic* literature. *Atisara* is described as a symptom in many diseases like *Dantobhedjanyatisara*, *Ksheeralaska*, *Vyadhiifaka*, *Revati*, *Putna*, *Balagraha* etc.

Most important factor in the pathogenesis of *Atisara* (diarrhea) is *Mandagni*. *Mandagni* is root cause of *Amadosha* and it is the crucial factor for manifestation of most of the diseases including *Atisara*. The Etiological factors are basically classified as Dietetic (*Aharaaja*), Behavioral (*Viharaaja*), and Psychological (*Manasika*) etc. The word 'Krimi' is an important factor for the *Atisara*, in children considered by *Acharya Charaka* and *Acharya Sushruta*.

Key words- *Atisara*, *Balatisara*, *Ayurvedic*, *Mandagni*.

## INTRODUCTION –

According to the World Health Organization (WHO) and UNICEF, there are about two billion cases of diarrheal disease worldwide every year, and 1.9 million children younger than 5 years of age perish from diarrhea each year, mostly in developing countries. This amounts to 18% of all the deaths of children under the age of five and means that more than 5000 children are dying every day as a result of diarrheal diseases. Each child under 5 years of age experiences an average of three annual episodes of acute diarrhea. Globally in this age group, acute diarrhea is the second leading cause of death (after pneumonia), and both the incidence and the risk of mortality from diarrheal diseases are greatest among children in this age group.

According to WHO, “diarrhea is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual)”<sup>[1]</sup>. During an episode of diarrhea, water and electrolytes including sodium, chloride, potassium and bicarbonate are lost through liquid stools, vomit, sweat, urine and breathing. A person with diarrhoea becomes dehydrated when these losses are not replaced. In addition, diarrhoea is a major cause of malnutrition, making the person more susceptible to future bouts of diarrhoea and to other diseases<sup>[2]</sup>. Some common pathogens that cause gastro-enteritis and subsequently diarrhea are bacteria, viruses & parasites (Escherichia coli, Rotavirus, Human caliciviruses, Giardia lamblia, Entamoeba histolytica).

*Atisara* explained in *Ayurveda* can be correlated to diarrhea, where ‘*Ati*’ means excess and ‘*Saranam*’ means flow i.e., a condition where watery stools passed in excess<sup>[3]</sup>.

*Atisara* (*Guden bahudravam sarnama atisara*) is described as individual entity in various *Ayurvedic* Classics, but not in term of children especially. The detailed description of *Balatisara* is not explained in *Ayurveda*. *Acharya Kashyapa*<sup>[4]</sup> has not separately described *Balatisara* but he has mentioned *Poorvroopa* of *Atisara* in *Vedana Adhhayay* of *Sutrasthan*. *Acharya Sushruta*<sup>[5]</sup> and *Acharya Madhava*<sup>[6]</sup> have mentioned 6 types of *Atisara* – *Vataja*, *Pittaja*, *Kaphaja*, *Sannipataja*, *Aamaja* and *Shokaja*. *Acharya Charaka*<sup>[7]</sup> and *Acharya Vagbhatta*<sup>[8]</sup> have mentioned 6 types of *Atisara*, wherein 5 types same as *Acharya Sushruta* except *Bhayaja* replace with *Amaja Atisara*. *Acharya Sharangdhara*<sup>[9]</sup> has mentioned 7 types of *Atisara* – *Vataja*, *Pittaja*, *Kaphaja*, *Sannipataja*, *Bhayaja*, *Shokaja* and *Aamaja*.

Factors determining susceptibility to diarrhea i.e poor sanitation and personal hygiene, non-availability of safe drinking water, unsafe food preparation practices. Intestinal infections, certain drugs, food allergy, systemic infections and surgical conditions can also present as acute onset of diarrhea. *Agnimandya* is the most important cause of *Atisar* which leads to peculiar symptom *Mala dravata*. So to treat *Atisara* many *Ayurvedic* formulations are usually mentioned in *Samhitas* which have *Deepana*, *Pachana* and *Grahi* property.

**MATERIAL AND METHOD-** The materials were collected from the classical *Ayurvedic* literatures and modern text books.

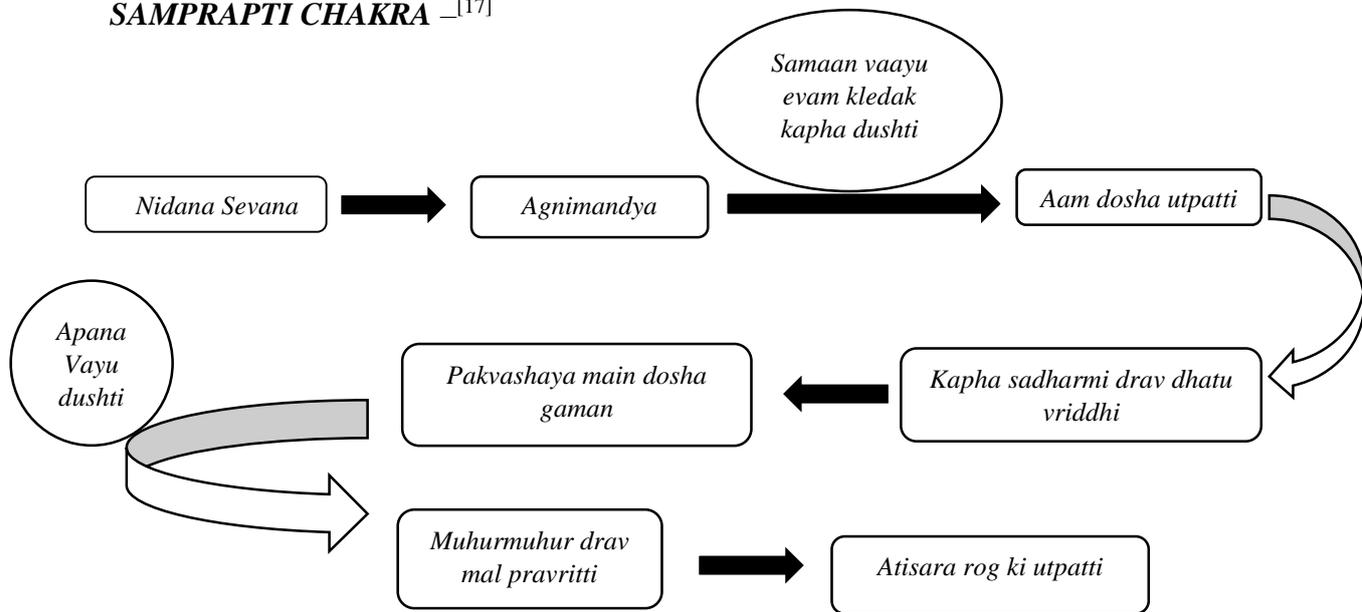
**Samanya Nidana** of *Atisara* explained in *Ayurvedic* texts includes food having quantity, quality, *Vipaka* virtuous in nature such as *Atiguru Swabhava*, *Maatra*, consumption of *Atisnigadha Aahara*, *Atiruksha Aahara*, *Atiushana Aahara*, *Atidrava Aahara*, *Virudhasana*, *Ajeerna*, excessive intake of water (*Ati Ambu Paan*), *Adharneeya Vega Dharana*, *Ritu Viprit Aahara Vihara*, *Bhaya* and *Shoka*.

*Acharya Sushruta* in *Uttarasthan* mentions *Guru*(heavy), *Snigdha* (unctuous), *Ruksha*(dry), *Ushna* (hot), *Drava* (liquid), *Sthoola*, *Sheeta padartha sevanana*, *Sanyoga viruddha*, *Samskara viruddha ahara sevana*, *Adhyasana* (eating before the digestion of previous meal), *Ajeerna*, *Asathmyabhojana*, increased *Snehapana*, *Bhaya* (fear), *Visha* (use of poison), *Shoka* (grief), *Dushtambupaana*, *Madyapana*, *Rithusaathmya* (change of season of physical contrarities), moving in water, *Vegavrodha*, *Krimi* and *Arshas*.<sup>[10]</sup>

**Premonitory symptoms (Poorva roop)** - According to *Acharya Sushruta* before the advent of *Atisara* (diarrhoea), the premonitory symptoms are *toda* in *hridaya*, *Nabhi*, *Payu*, *Udara*, *Kukshi* (piercing pain in the region of heart, umbilicus, rectum and abdomen), *Anilasannirodha* (non- elimination of flatus), *Vitsanga* (constipation) *Adhmana* and *Avipaka*(abdominal distension and indigestion).<sup>[11]</sup>

**Vishishta roopa**-*Acharya Sushruta* had classified *Atisara* in 6 types; on the basis of these types *Vishishta Roopa* are described.

- 1) *Vataj atisara*- Pricking abdominal pain (*Udarshoola*), urine incontinence , *Antrakujana* , Patient defecate hard, frothy, blackish stool in little quantity with sound, and rectal prolapse( in chronic stage).<sup>[12]</sup>
- 2) *Pittaj atisara*- Stool is *Haridra* (yellowish) *Haritha* (greenish), *Nila* (blue), *Krishna* (blackish) tinged with blood and *pitta*, *Atidurgandha* (very offensive), is accompanied by *Trishna* (thirst), *Daha* (burning), *Sweda* (perspiration), *Murcha* (fainting), *Shoola* (colic), *Santapa*, *Paka* (suppuration and inflammation of the affected organs).<sup>[13]</sup>
- 3) *Kaphaja atisara*- Due to vitiated *Kapha Dosh*, patient feels sleepy, heaviness, nausea , anorexia and sluggish. Even after defecation, feeling of defecation regain, stool color is whitish, semisolid consistency and with mucus.<sup>[14]</sup>
- 4) *Sannipataja atisara*- Patient remains lethargic, unconscious and features of vitiated *Vata*, *Pitta* and *Kapha doshas* were found.<sup>[15]</sup>
- 5) *Shokaja atisara* - According to *Acharya Charak* and *Vagbhatt* its signs and symptoms are similar to *Vataj Atisar*.
- 6) *Amaja atisara*- Patient defecate *Ama Mala* with different colors alongwith constipation sometimes.<sup>[16]</sup>

**SAMPRAPTI CHAKRA** <sup>[17]</sup>**SAMPRAPTI GHATAK-****Table no.1**

<b>Dosha</b>	<b>Vatapradhan (Tridoshaja)</b>
<b>Dushya</b>	<b>Rasa jaleeya Dhatu</b>
<b>Agni</b>	<b>Mandagni</b>
<b>Srotasa</b>	<b>Pureesh, Udak and Annavaaha srotasa</b>
<b>Adhithana</b>	<b>Pakvasaya</b>
<b>Srotasadusti</b>	<b>Atipravritti</b>
<b>Rog marga</b>	<b>Madhyam marg</b>

**Upadrava** - The *Upadravas* of *Atisara* (diarrhoea) as mentioned by different authors are compiled as *Trishna* (thirst), *Daha* (burning sensation), *Swasa* (difficulty in breathing), *Bhrama* (giddiness), *Hikka* (hiccup), *Jwara* (fever), *Sopha* (swelling), *Ruja* (pain), *Kasa* (cough), *Aruchi* (tastelessness), *Pravahika* (mucous diarrhea), *Parikartika* (gripped pain in rectum), *Murcha* (fainting). The majority of the *Upadravas* are clearly symptomatic of a severe level of dehydration.

**In modern view**, symptoms of *Atisara* can be closely correlated with diarrhea. By definition, diarrhea means passage of three or more loose or watery motions per 24 hours, resulting in excessive loss of fluid and electrolytes in stools. Existence of malnutrition makes the child very much vulnerable to diarrheal disease. The incidence and mortality are especially high in infancy, more so in the presence of malnutrition and erratic feeding practices.

On the basis of frequency of loose stools and signs of dehydration, diarrhea can be mild (Onset is usually insidious with two to five motions, without any remarkable constitutional manifestations or dehydration), moderate (The number of motions is ten or more and constitutional symptoms like fever, irritability, anorexia and vomiting are usually present. Mild dehydration is associated) or severe (The child passes 'too many' loose motions and has severe vomiting, marked constitutional symptoms. Moderate to severe dehydration further aggravates the clinical picture). Conventional Rehydration Therapy or Replacement of the fluids as soon as possible is the sheet anchor of management of acute diarrhea. Intravenous fluid therapy is indicated in cases with severe dehydration and those who fail to retain ORS persistently. It consists of deficit and maintenance therapy.

WHO recommended Oral rehydration solution or homemade ORS [one three-finger-pinch (1/2 teaspoonful) of common salt and two four-finger-scoops (5 teaspoonful) of sugar in one liter of tap or boiled water] along with zinc supplement, probiotics, Vitamin A supplements. Alternative home-made electrolyte solutions include Dal and water solution, carrot juice, tender coconut water, Bengal gram kanji, weak tea, fruit juices, banana, Arrowroot kanji with salt.

## DISCUSSION AND CONCLUSION-

*Atisara* is the disease of GIT and it has *Aaharaj* and *Viharaja Nidana* and its *Samprapti* involves vitiation of *Vata dosha* and *Apa dhatu* along with *Agnimandya* and *Mala dravata*. In *Samhitas* dehydration isn't specifically mentioned, but symptoms like *Trishna*, *Sosha*, *Sushkasya*, and *Saktamootra* etc. point to the possibility of dehydration. Diarrhea occurs mainly due to unhygienic conditions that's why it is found more in children of low socio economic status. As its *Samprapti* involves *Agnimandya* and *Mala dravata* and the *Ayurvedic* formulations used in its treatment usually have *Deepana*, *Pachana* and *Grahi* property. These formulations increase the appetite so reduce the *Agnimandya* and due to *Pachana* property they decrease the *Ama* formation. *Nidana parivarjana* (Avoiding the cause) is the baseline treatment along with breaking of *Samprapti* of disease by various *Ayurvedic* formulation. Also some preventive measures like improvement in the nutritional status of the children, improvement in community's water supply, sanitation and hygiene and breast (biological) feeding should be encouraged.

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