

Effect of *Nagaradi* Granules in *Balatisara* (Childhood Diarrhoea): A Case Report

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Abstract-*Atisara* is a common ailment of the current era which may be due to irregular and unhealthy habits related to *Ahara* and *Vihara*. *Atisara* explained in *Ayurveda* can be correlated to diarrhea, where ‘*ati*’ means excess and ‘*saranam*’ means flow i.e., a condition where watery stools pass in excess. The magnitude of diarrhea prevalence is directly proportional to the community's sanitary and personal hygiene standards. Acute diarrhea in the community behaves on the same lines as another infectious disease. Infants and children are more frequently and more severely affected than older people, indicating poor immunity in the former. In the present case report, a 6-year-old female child with complaints of *Muhur muhur pravritti* (~Increased frequency of stool), *Agnimandya* (~Low Appetite), *Udar shola* (~Abdominal pain), *Durgandhit Mala*(~Foul smell of stool), *Atidrava mala pravritti*(~Watery Consistency) visited to Kaumarbhritya OPD at Rishikul Campus, UAU, Haridwar. The condition was diagnosed as *Atisara* and *Nagaradi Granules* was given to the child for 7 days once a day. According to the results, the patient benefited from all symptoms after 7 days of management. No complications were seen in the patient, after completing a follow-up of 14 days.

Keywords:- *Atisara, Nagaradi, saranam, Muhur muhur pravritti, Durgandhit Mala, Agnimandya, Atidrav mala pravritti.*

INTRODUCTION

Atisara is described as a symptom in many diseases like *Dantobhedjanyatisara*, *Ksheeralaska*, *Vyadhiifaka*, *Revati*, *Putna*, *Balagraha* etc.^[1] Even though separate description of *Balatisara* as a disease is not found in scriptures, but specific treatment remedies are available there specially for *Balatisara* (Diarrhea in children). The *samprapti* of *Atisara* may be same for both in adult and children but they differ in terms of some added etiological factors (like *Dantobheda*, *Balagraha*, *Ksheeralsaka* etc.) and increased morbidity and mortality. ‘*Krimi*’ is an

important factor for the *Atisara*, in children considered by *Acharya Charaka* and *Acharya Sushruta*.^[2] Increase frequency of defecation, disturbed electrolyte balance, thirst, weakness, gas formation and abdominal cramps are the common symptoms of *Balatisara*.

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)”. Acute diarrhea (AD) is the most frequent gastroenterological disorder, and the main cause of dehydration in childhood. It is manifested by a sudden occurrence of three or more watery or loose stools per day lasting for seven to 10 days, 14 days at most.^[3] Diarrhea infections are caused by ingesting contaminated food or exposure to fecal matter. Some common germs that cause gastro-enteritis and subsequently diarrhea are bacteria, viruses & parasites. Thus, in present study *Balatisara* is taken as the subject of intervention with the drug ‘*Nagaradi Granules*’ mentioned in *Yog Ratnakara* under *Balrogadhikara*.^[4]

Patient Information

A 6-year-old female child with complaints of *Muhur muhur pravritti* (~Increased frequency of stool), *Agnimandya*(~Low Appetite), *Udar shoola*(~Abdominal pain), *Durgandhit Mala*(~Foul smell of stool),*Atidrav mala pravritti*(~Watery Consistency) from past 1 day, visited to Kaumarbhritya OPD at Rishikul Campus, UAU, Haridwar. She sought Ayurvedic treatment for this condition. The birth history of the patient was uneventful. The patient was born with FTNVD. All the vaccines till age have been covered. A detailed history of dietetic and physical regimens, etc., was taken. The patient was taking a mixed diet, which is irregular in terms of time and quantity. She used to take spicy, salty, deep-fried, and baked food items frequently. She

had a habit of sleeping in the daytime with no physical activities and the fluid intake was also very minimal.

General and Systemic Examination

The patient was *Vatta~Pittaj prakruti*. *Mala* was *Excess* (~More in quantity), and *Drava* (~Watery), with a Foul smell. *Ahara Shakti* was *Avara*, *Koshta* was *Mridu* (~Increased bowel), and *Agni* was *Manda*. There was no cyanosis, pallor, or icterus. Thus, *Annavaha*, *Udakvaha*, and *Purishavaha srotases* were found vitiated. No abnormalities were found on systemic examination.

Diagnosis

Based on symptoms, the condition is diagnosed as *Atisara*. All the laboratory investigation findings of the patient were within the range, except decreased hemoglobin (10.1 g/dl). Stool and urine examinations were normal.

Timeline

Due to age, *Deha* and *Satva bala* (~physical and mental strength) and *Basti*(~Medicated enema) are not

appropriate; thus, *Shaman chikitsa* (~Oral medication) was planned. The patient was advised to take *Nagaradi Granules* daily for 7 days with restriction of the bath just after food, consumption of sour, spicy, excessively salty, junk food, tinned food, soft drinks, and food items which are heavy to digest during the treatment period. The details of the treatment given to the patient are mentioned in Figure 1. Observations were recorded at regular intervals of week during the treatment till 7 days and follow-up was taken on 7th day after completing the treatment. The efficacy of the treatment was assessed by improvement in the symptoms score and change in *Mala pravarti*.

FOLLOW-UP AND OUTCOME

Improvement was noted in the frequency and severity of the symptoms [Table 1]. Before treatment, the frequency of *Mala pravarti*(~*Bowel frequency*) was >5-6 stool/ day and after treatment patient was passing normal semi-solid stool per day. Also, improvement was seen in, *Agnimandya*, *Udar shoola*, *Durgandhit Mala*, *Atidrava mala pravritti*.

Table 1: Improvement in the severity of symptoms of *Atisara*.

S.No.	B.T	1 st follow up	2 nd follow up	3 rd follow up	4 th follow up	5 th Follow up	6 th Follow up	7 th Follow up	After treatment
eqqeqZgw ço'fr (Frequency of stool)	3	3	2	2	1	0	0	0	0
vfræo ço'fr (Consistency)	3	3	3	3	2	2	0	0	0
mnj'kwy (Abdominal pain)	2	1	1	1	1	0	0	0	0
vfXueka (Decreased appetite)	2	2	2	2	2	2	1	0	0
nqxZfU/kr ey (Foul smell)	2	2	1	1	1	0	0	0	0

Discussion

There are sporadic mentions to this disease in Ayurvedic texts. Diarrhea management is seen as a serious problem, especially in urban and rural regions. In order to evaluate an anti-diarrhea medication that is strong, efficacious, safe, affordable, and easily accessible, natural sources are being used. *Atisara* is typified by mala *Atisarana* through Guda. This sickness is caused by *Vimarga Gamana of Udaka*,

which extends from *Udakavahasrotas* to the *Purishavaha* and *Annavaha Srotas*.^[5] It is characterized by *Atidrava Mala Pravritti*. *Purishavaha Sroato Dusti's* influence is the reason behind it.^[6] This is a condition in which the rectum passes excessive amounts of watery stool multiple times a day. Probable mode of action of *Nagaardi Granules* has shown in Table no 2.

Table 2: Probable mode of action of *Nagaradi Granules* in *Balatisara*.

DRUG	PHARMACOLOGICAL ACTION
• <i>Nagara</i>	Appetite stimulant, Antioxidant, Anti-inflammatory and Anti-emetic actions.
• <i>Ativisha</i>	Antipyretic, Stomachic, Antiemetic, Anthelmintic, Antidiarrheal, Carminative, Anti-inflammatory and Antimicrobial

• <i>Musta</i>	Anti-diarrheal, Anti-inflammatory, Anti-emetic, Analgesic, Anti-pyretic, Gastroprotective activity, Antiseptic properties and Inhibition of gastric motility activity.
• <i>Indrayava</i>	Anti-diarrheal, Anti-bacterial, Anti-protozoal, Antispasmodic, Anti-amoebic activity.

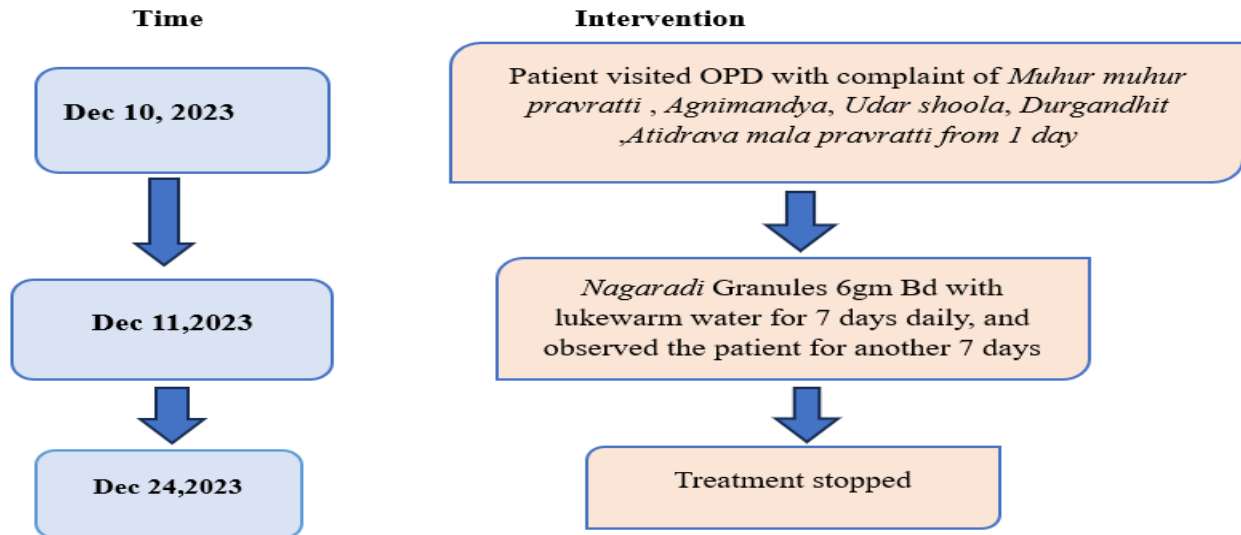


Figure 1: Details of intervention.

Conclusion

According to this study, the qualities of *Nagaradi Granules*, such as *Deepana*, *Pachana* and *Sthambhan*, make it useful in *Atisara*. Additionally supporting the early regenerative phase is *Nidana Parivarjana*.

Declaration of Patient Consent

The authors certify that they had received a patient consent form from the patient, confirming that the patient's attendant has granted permission for the case to be published in the journal along with the photos and further clinical data. Anonymity cannot be guaranteed, but the patient's attendant understands that his or her name and initials will not be published and that every attempt will be taken to conceal their identity.

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Conflicts Of Interest

There are no Conflicts of Interest.

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