



RESEARCH ARTICLE

AYURVEDIC MANAGEMENT OF DIARRHEA IN CHILDREN: A CASE REPORT

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ABSTRACT

Diarrhea is a condition, where watery stool are passed in excess, several times a day through rectum. This disease when untreated gradually leads to mild to severe dehydration, which in turn adversely affects children & is the major concern of mortality in children. In Ayurveda, it can be compared with a disease Atisara which is characterized by mala Atisarana through Guda is called as Atisara. This is a disease characterized by Atidrava Mala Pravritti due to Vimarga Gamana of Udaka from Udakavahasrotas to the Annavaaha and Purishavaha Srotas. It is caused by the influence of Purishavaha Sroato Dusti. Essential factor in this condition is the abnormal rapid passage of food materials mixed with fluid drawn from the whole body through the Mahasrotas due to vitiation of Ahara Parinamakara Bhavas and due to increased peristalsis. A male patient for the complaints of Atisara like dravamalavega (diarrhoea lasting for more than 2 weeks), Jwara (moderate T-101⁰F to 103⁰F), Vivarnata (moderate), Udara Shoola (continuous moderate pain), Trishna (moderate-drinks poorly), Kshudhahani (appetite decreased), Daurbalya (weakness), Nidralpata (reduced sleep) is treated with combination of herbal, potent, safe, economical & effectively accessible Anti-diarrheal drugs from natural sources like Sanjeevani Vati 62.5mg, Kutaj Churna & Bilvamagaj Churna 1gm with curd two times a day after food for a period of 7 days. After treatment, a significant relief in sign and symptoms was found.

INTRODUCTION

Diarrhea is the most widely recognized pediatric complaint worldwide in tropical and sub tropical geographical areas. The complaints of diarrhea in dentition period accompany more prominent occurrence in pediatric practice. Poverty, ignorance, absence of cleanliness, awful sanitation and utilization of uncooked nourishment or improper washing of food materials and so on are the significant components for diarrhea in developing countries like India. Diarrhea is the most common disease seen particularly in children. This disease when untreated gradually leads to mild to severe dehydration, which in turn adversely affects children & is the major concern of mortality in children. Atisara is one of the commonest disease found these days in the children. When it occurs in children, it is a cause of concern for the parents as the child will have sunken eyes, flabby skin and looks severely ill and weak even if diarrhea occurs for a day or two. The parents would want the doctor immediately to stop it within a short duration, as this may lead to severe complications in the children if not treated at the earliest. In Ayurvedic texts, scattered references about this ailment are found. Management of Diarrhea is viewed as a significant issue particularly in the urban and rural areas.

Thus to assess a powerful, potent, safe, economical & effectively accessible Anti-diarrheal drugs from natural sources is being chosen. The disease which is characterized by mala Atisarana through Guda is called as Atisara. This is a disease characterized by Atidrava Mala Pravritti due to Vimarga Gamana of Udaka from Udakavahasrotas to the Annavaaha and Purishavaha Srotas. It is caused by the influence of Purishavaha Sroato Dusti. It is a condition, where watery stool are passed in excess, several times a day through rectum. Essential factor in this condition is the abnormal rapid passage of food materials mixed with fluid drawn from the whole body through the Mahasrotas due to vitiation of Ahara Parinamakara Bhavas and due to increased peristalsis. Due to the Nidana Sevana, Guru, Madhura, Sheeta, Snigdha Guna of Kapha increases and gets collected in the Amashaya where it decreases the Jatharagni comes to the Pakvashaya forms Drava Mala resulting in Sleshmaja Atisara. (Cha.Chi.19/5).

In Amatisara, the Pathology is more prevailing in the Pittadhara Kala instead of the Pureeshadhara kala. Here the vitiation of Pittadhara Kala occurs because of the Nidanasevana like Guru Snigdha Ahara, Dushita Ambupana and so forth. This Pathology is like that of the Osmotic Diarrhea where even the causes are similar like the excessive intake of carbonated fluids (Dushta Ambupana), non absorbable solutes and so on, and the treatment is also similar to that of Amatisara where Langhana is indicated i.e., here the Diarrhea descends by the non intake of food.

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In Pakwatisara, the Pathology is increasingly prevailing in Pureesha Dhara Kala i.e., Pakwashaya is progressively dominant in Pureeshadhara Kala i.e., Pakwashaya than Pittadhara Kala. Here the Vata Vriddhi happens due to Nidana Sevana and this Vriddha Vata hampers the Dosha Samshoshna (Kleda Somshoshna) and it hauls the Udakamsha from the Udakavaha Srotas (Rasa, Kapha, Meda etc) in prompting to the increased watery stool. The pathology is like that of the secretary Diarrhea, where there is the enactment of intracellular mediation and water is hauled into the colon. **Purvarupa** - Pricking type of pain in Hridaya, Nabhi, Payu, Kukshi and Udara. Bodyache, Obstruction in Vata movement, Constipation, Distention of abdomen, Indigestion. (Yogaratanakara Balroga, S.S. Ut. 40, M.N. Atisar Nidan, B.P.M.K.2). Toda in Hridaya, Guda and Koshta, Body ache (especially Pindikodwestan), constipation, distention of abdomen, and indigestion (A.S.Chi.). Kukshi, Udara, Vaksha, Nabhi and Payu Satata Vedana, obstruction of movement of Vata (H.S. 3/3)

Rupa: The excessive Saran of Purishayukta Apa Dhatu through Adhomarga is termed as Atisara. (A.H.Ni8/17), Bahumala Pravriti i.e. excessive watery stool from anus is the Pratyatmik lakshana of Atisara. Dryness of skin, mucous membrane, increased thirst, decreased urine output. According to Bheda in Vataj- Atisara, Sashabda Mala Pravuriti, Todavat Vedna. In Pittaj Atisara Purisha with yellow, green, blue color, with burning sensation and in Kaphaj Atisara oily feces & white feces, cold, heaviness in the body.

Amatisara Lakshnas: Amayukta Shweta Varna Mala Pravriti, with bad odor, Mala along with pain, Mala along with sound, Admana and Atopa. Due to Ajeerna Ama the vitiated Dosha will further vitiate the Kostha and will draw out the feces along with the food and the mala will have various colors coming out with difficulty as often as possible.

Pakvatisara Lakshana: Little by little small quantity of mala, Mala along with sound, pain, froth, tearing pain and sometime nodule. Horripilation, breathing difficulty, dry mouth, Kati-Uru-Trika-Janu-Parsva shula, stricture in anus. It has been said in Astanaga Hridaya chikitsa that when the Ama is well digested, the Agni becomes solid and the patient removes feces that are frothy, slimy and very frequently associated with the pain.

According to Madhav Nidan, Sushrut Samhita & Yogratnakar: Amatisara - When put in water it sinks, along bad odor, broken a little by little. When these features are absent then it considered as Pakvathisara, here there is feeling of lightness in body. If the feces is immature it sinks in water whereas, the mature one floats on water except in condition excess liquidity, compactness, coldness and presence of mucus. The immature stool has foul smell with painful flatulence, distressing constipation, and abnormal salivation. It is free from Ama.

According to Kashyap Samhita: In Vedana Adhyaya the symptoms mentioned are Deha Vaivarnaya (Discoloration of body), Arati (Discomfort), Mukh Glani (Dryness of mouth, dull look), Anidarata (Loss of sleep), Vatakarma Nivarti (Disturbances in the normal functioning of Vata in Pakwashaya). Kaphaja variety of Atisara is correlated with Osmotic Diarrhea. The reason behind it is similarity between the etiological factors i.e., intake of high osmolar solutions like

fluids with high sugar contents etc., more over the clinical features of Kaphaja Atisara resembles with that of Osmotic Diarrhea. It is a condition characterized by an increase in frequency, fluidity and weight of the stool, compared to normal bowel habit of the child. A neonate may pass 8 to 10 liquid stools per day which is normal for him, but it is abnormal in an older child.

Kaphatisar: Oily, white, slimy Feces, Feces with Ama, heavy in nature, bad odor, kapha, pain, passing feces, very frequently, heaviness in Guda, Udara, Basti and Vankshna, un-satisfaction even after the elimination of feces, horripilation, feeling sleepy, feeling laziness, dislike for food, feces spreads, cold, tiredness, heaviness in the body, vomiting and anorexia.

Osmotic diarrhea: It is caused by ingestion of solutes that cannot be digested or absorbed, diseases that prevent the patient from absorbing solutes that are normally absorbed and it is characterized by malabsorption of nutrients, electrolytes and water.

criteria For Assessment: The assessment was made before and after the treatment on scoring of signs and symptoms of Atisara. Results were analyzed according to the appraisal outline. The child was enquired for the presence of sign and symptoms with Atisara like dravamalavega, Jwara, Vivarnata, Udara Shoola, and Trishna.

Instrumentation: Scoring pattern was created according to severity of signs & symptoms.

Atisara:

Absent - 0

3 to 4 loose stools without any significant wt. loss - 1

4 to 5 loose stools with some wt. loss - 2

Diarrhea lasting for more than 2 weeks - 3

Jwara:

Absent T-98°F - 0

Mild T-99°F to 100°F - 1

Moderate T-101°F to 103°F - 2

Severe T >103°F - 3

Vivarnata:

Normal - Absent - 0

Only on face - Mild - 1

Any half of the body - Moderate - 2

All over the body - Severe - 3

Udarshoola:

Normal - Absent - 0

Occasional - Mild - 1

Continuous pain - Moderate - 2

Cries due to pain - Severe - 3

Trishna:

Normal - Drinks normally, not thirsty - 0

Mild - Thirsty, drinks eagerly - 1

Moderate-Drinks poorly - 2

Severe -Not able to drink - 3

Patient description and historical examination findings:

Case: A 8-year-old thin built male patient visited the outpatient department for the complaints of Atisara like dravamalavega (diarrhoea lasting for more than 2 weeks), Jwara (moderate T-101⁰F to 103⁰F), Vivarnata (moderate), Udara Shoola (continuous moderate pain), Trishna (moderate-drinks poorly), Kshudhahani (appetite decreased), Daurbalya (weakness), Nidralpata (reduced sleep) for more than two weeks. A history of the present illness revealed that the patient was apparently normal before two weeks. He had episodic passing watery loose stools for 4 to 5 times per day. The problem increased day by day, and the patient suffered from fever and severe abdominal pain, then consulted with family physician and was on some antibiotic medicine which relieved the condition for a time being. After two days he feels pain in abdomen, with frequent watery stool 3-4 times a day with some associated symptoms. Looking into the signs and symptoms of the patient diagnosed as a case of Kaphaja Atisara.

Examination**Physical**

Body weight: 22 kg
 Pulse: 104/min, Fast, low volume
 Respiration Rate: 26/min, Normal
 Weight loss – Up to 3%
 Appearance – Irritable, alert, thirsty
 Capillary filling – slightly delayed
 Mucous membrane – Dry
 Tears – Less than expected
 Eyes – Normal
 Pinched Skin – Tents briefly
 Urine flow - Reduced

Systemic

Abdomen: Soft
 CVS: S1S2 normal
 RS: Bilateral chest clear
 CNS: Irritable

Investigations

HB – 12.8 gm%
 TLC – 7000 cumm
 DLC – Neutrophils 56 Lymphocytes 38 Monocytes 4
 Basophil 0 Eosinophil 2
 ESR – 9 mm/hr
 RBS – 176 mg/dl
 Electrolytes – Potassium: 2.2mmol/L, Magnesium:
 0.69mmol/L, Pyruvate 320µg/dL, Sodium: 113 mmol/L, Total
 calcium: 8 mg/dL

Grading of subjective and objective parameters before treatment

Atisara like dravamalavega - 3
 Jwara - 2
 Vivarnata - 2
 Udara Shoola - 2
 Trishna. - 2

Treatment Schedule

Sanjivani Vati (Vidang – *Embelia ribes*, Sunthi – *Zingiber officinale*, Pippali – *Piper longum*, Haritaki – *Terminalia chebula*, Bibhitaki – *Terminalia bellirica*, Amalaki – *Phyllanthus emblica*, Vacha – *Acorus calamus*, Giloy – *Tinospora cordifolia*, Shuddha Bhallataka – *Semecarpus anacardium*, Shuddha Vatsanabha – *Aconitum ferox*, Cow's urine) – 62.5mg, Kutaj Churna (*Hoarrhena antidysenterica*) & Bilvamagaj Churna (*Aegle marmelos*) 1gm with curd two times a day after food was given to the selected child for a period of 7 days.

DISCUSSION

It is observed that patient of Atisar mainly took Shita Jala Pana, Atiruksha, Atiguru, Matra guru, Samskar Virudha Ahara etc, also these Nidhan Parivarjan is done. According to Bheda in Vataj- Atisara, Sashabda Mala Pravuruti Todvat Vedana. In Pittaj Atisara Purisha with yellow, green, blue color, with burning sensation & in Kaphaj Atisara oily feces & white feces, cold, heaviness in the body. Looking into the signs and symptoms of the patient diagnosed as a case of Kaphaja Atisara.

Mode of action of drugs: Sanjivani Vati acts as Antitoxic, Antivenin, Antimicrobial, Anti viral, Anti bacterial, Ama Dosh Pachak, Antitussive. It works in indigestion associated with aggravation of Kapha dosha and Ama dosha. It reduces Kapha and eliminates Ama, which help in alleviating abdominal heaviness, belching with a taste of food or sweet and salty taste and abdominal discomfort. Kutaj Churna is Shlesmapittahara, Sangraha, Upashoshana, Truthara, Jantujit) and Bilvamagaj Churna is Grahi, Ruksha, Agnipittakrut, Vatashleshmahara, Deepana. The compound drugs used which are Deepana, Pachana, Jwaraghna, Vishaghna, Vatanuloman & Grahi, Trishanahar in nature and it correct the Vimargagaman & Ati drava mala prvruti lakshnas in Atisar, Improves Agni, Functioning of Pakvashaya and treat the Atisar and its compound used along with Dadhi grants Bala, Varna to the Patient. Dadhi is Amla, Ushna Virya vitiates Vata, water absorbant (causes constipation) and is Rochana, Deepana, Bruhana. So it is useful in Atisara.

RESULTS

Clinical assessments were made from the interrogation and gradation of scoring pattern. After treatment all these symptoms Atisara, Jwara, Virarnata, Udarashoola and Trishna were reduced and patient get relief completely. During treatment patient was advised to take coconut water, Mand, Peya, Lajamand, Takra and ORS. Easily digestible diet is given to the patient. There was no side effect observed during the treatment as well as after the completion of treatment. There was no need to take any antibiotic medicine during the treatment.

CONCLUSION

This small case study demonstrates that patient with Atisara can make significant gains in symptoms in relatively short periods of time. Our intention, however, is to serve as a demonstration of the positive outcomes that are possible through the use of a easily available herbal drugs as mentioned in classical Ayurvedic text.

The compound herbal drug was effective alleviating the symptoms of Atisara. This beneficial effect of compound drug may be due to its Deepana, Pachana, Jwaraghna, Vishaghna, Vatanuloman & Grahi, Trishanahar properties. Despite the limitations of this case study, conclude that the compound drugs may be an effective option in the treatment of Atisara.

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