

A HERBAL APPROACH TO MANAGE DIARRHOEA

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ABSTRACT

Diarrhea is a leading cause of morbidity and mortality in the developing countries. Despite there is improvement in public health, the incidence of intestinal infection is continues to be an important clinical problem. Fluid electrolyte replacement, mainly oral rehydration therapy is the main stay for the management of diarrhea and antimicrobial agents for infective diarrhea are used worldwide. According to Ayurveda diarrhea occurs when the digestive fire is weakened, absorption and assimilation get slow and the movement of food through the digestive system is accelerated causing liquidly stools. We present here management of diarrhea with the help of Ayurvedic medicine.

KEYWORDS: Diarrhea, Atisara, Agni, Anti-microbial herbal drugs.

INTRODUCTION

Diarrhea is defined as a change in consistency and frequency of stools, i.e liquid or watery stools. Diarrhea counts for 20 percent of all deaths in under-five children. More than 2

million deaths are estimated to result each year the world over as a consequence of diarrheal disease in children of fewer than five years. On average 3.3 episodes of diarrhoea are experienced per child per year but in some areas the average exceeds 9 episodes per year^[1] The two most important consequences of diarrhea in children are malnutrition and dehydration. Factor determining susceptibility of diarrhea include poor sanitation and personal hygiene, unavailability of safe drinking water, unsafe food preparation and low rate of breast feeding and immunization. Intestinal infections are most common cause of acute diarrhea. Certain drugs, food, allergy, systemic infections and surgical conditions can also present as acute onset of diarrhea. Bacterial: *Escherichia coli*, *Shigella*, *Vibrio cholera*, *Salmonella* etc. *Viral*: rotavirus. Human calciviruses etc. *Parasitic*: *Entamoeba histolytica*, *Giardia lamblia* etc. Mild stomach upset for one or two days with slight diarrhea or severe watery diarrhea for several days. Diarrhea means watery loose stools for at least 3 times in 24 hours.^[2] Crampy pain in abdomen are common. Vomiting, fever, headache may also be there. This may result in dehydration. There are 3 clinical types of diarrhea; acute watery diarrhea- Lasts several hour or days includes cholera. Bloody diarrhea-Also called dysentery. Persistent diarrhea- last 14 days or longer.^[2] In Ayurveda Most important factor in the pathogenesis of *Atisara* (diarrhea) is *Mandagni*. The root cause of *Amadosha* is *Mandagni* and it is the crucial factor for manifestation of most of the diseases including *Atisara*. In *samanya Samprapti* of *Atisara* *Agnimandya* and *Ajeerana* causes *Dushti* of *Koshta* and *Pakwamashaya*. As a result *Updhatu* attains *Vimargamana* from different part of the body to *Koshta*, leading to increase in *Dravata* of *Pureesha* in *Pakwashaya* manifesting as *Atisara*.^[3] Immediate treatment of symptoms in babies has great importance, because if it is ignored then it may cause severe dehydration which is life threatening. So, it is important to know about the causes and symptoms as well as how to manage and treat them. In allopath the corner stone of acute diarrhea management is rehydration by using oral rehydration solution. But ORS does not reduce frequency and volume of stools or the duration of diarrhea. Antibiotics have a very limited role. Non-specific anti-diarrheal are commonly use in routine treatment to hasten the recovery for the reassurance of patients. Some non-specific anti-diarrheas are diphenoxylate, loperamide etc. In traditional systems of medicine (Ayurveda) many anti-diarrheal medicines are available which can also offer more advanced therapeutic strategies and good level of support. This approach of treatment of diarrhea in modern medicine Ayurveda are entirely different. Modern day medicine are preferred presently as they act fast and cease the motion immediately. In modern medicine the only treatment necessary is replacing lost fluids and electrolytes to prevent dehydration.

Some medicine such as subsalicylate, loperamide and bismuth are helpful to stop diarrhea in adults. If there is involvement of bacterias and parasites then antibiotics are usually prescribed. These diarrheal medicines for adult can be dangerous for infants and children. In Ayurveda treatment has to be undertaken should base on nature of stool with endotoxins and without endotoxins. In case of mild degree toxin diet advice and carminatives are used, in moderate degree digestives are administrated and in intense degree detoxification (*Shodhan - Virechan, Basti*) is done to eliminate toxins. Ayurveda uses the inherent power of natural herbs to improve the body metabolism and digestive disorders. Here we have some herbs/drugs in Ayurveda that are helpful in case of diarrhea.

ZINGIBER OFFICINALE

Commonly known as ginger belong to the family Zingiberaceae. It has been known for its ability as an Antiemetic and also a digestive aid. Ancient Ayurvedic texts have listed numerous of both fresh and dried rhizomes of Z.Officinale. It is traditionally used for a number of gastrointestinal disorders including 'Diarrhea'. The study on crude extract of the plant Z. Officinale investigated a high folkloric reputation for anti-diarrhea activity. Inhibition of intestinal motility by the extract show that the extract have antimicrobial action as well.^[4]

ACONITUM HETEROPHYLLUM

It is also known as *Atees* in *Hindi*. *Ativisha* is an important herb used in Ayurvedic pediatric medicine. Its roots are commonly used for fever management in infants and children. In *Charaka Samhita* it has been recommended for treating obesity, piles, stomach disorders etc. In *Sushruta Samhita* it was suggested as a remedy against diarrhea. *Charaka* described this drug as per its therapeutic actions, under *Lekhaniya* (tissue scraping action), *Arshoghna* (hemorrhoids-curing), *Shirovirechana* (errhines, nasal therapy), and *Tikta* (bitter), while *Sushruta* placed it under *Mustadi* and *Vachadi Gana*.^[5] Aconitum heterophyllum has been extensively studied for its alkaloid profile (Pelletier et.al, 2009). Pharmacological studies on the root tubers of A.heterophyllum revealed its anti-inflammatory (verma et al., 2010), anti-diarrheal (Prasad et al., 2012) and hyperlipidemic (subhash and Augustine, 2012) properties.^[6]

Ativisha is bitter and pungent in taste, pungent in the post digestive effect and has hot potency. It alleviates all the three doshas, especially *Kapha Dosha* the most. It possesses light and dry attributes. It is an appetizer, digestant and astringent in properties and is used in

diseases like diarrhea, vomiting, worm infestations, cough and diseases due to *Ama*. Diarrhea is well controlled with the mixture of *Ativisha* (*Aconitum heterophyllum*), *Kutaja* (*Holarrhena antidysenterica*) bark skin and its seeds (*Indrayava*), given with honey.

HOLORRHENA ANTIDYSENTRICA

Holarrhena antidysenterica also called *Kutaja* in Ayurveda is a medicinal plant that has antidysenteric, anti diarrheal and anti amoebic properties. In Ayurveda it is used for the treatment of amoebic dysentery, diarrhea. The accepted botanical name of *Holarrhena antidysenterica* is *holarrhena pubescens*. For therapeutic purposes seeds and bark of *holarrhena antidysenterica* are used. Both have antibacterial and anti-diarrheal effects. The seeds of *Kutaja* contain five main steroidal alkaloids : 1. Conessine, 2. Isoconessimine, 3. Conessimin, 4. Conarrhimin, 5. Conimin all these stroidal alkaloids have ACHE inhibitory activity. The alkaloid conessine has antidysenteric properties, so *Kutaja* is mainly useful for dysentery, diarrhea and helminthic disorders. Conessine also present in both stem, bark and seeds of *Kutaja* (*holarrhena antidysenterica*). It had *Tikta*(bitter) *Rasa*(taste), *Laghu Guna*(quality), *Sheeta Virya*(potency), *Katu Vipaka*(resultant) and has anti-dysenteric *Prabhava*(therapeutic effect). Both seeds and stem bark of *holarrhena antidysenterica* useful in dysentery, diarrhea with fever and amoebiasis. It completely kills *entamoeba histolytica* and clears it from intestines and liver completely. According to clinical study *holarrhena antidysenterica* provides about 70% results in intestinal amoebiasis. *Holarrhena antidysenterica* also appear against shigella bacteria. 'Conimine' and 'Conessine' inhibit some strains of shigella bacteria.^[7]

CONCLUSION

3 single herbs are reported in this article with their properties and uses in management of diarrhea in initial stage. These herbs may help the traditional practitioners in management of diarrhea. However, to improve the case management of diarrhea Ayurvedic management can offer personalized level of support.

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