Dysentery is a common but potentially serious disease of digestive system that occurs throughout the world. Morbidity and mortality due the Dysentery is major problem especially more in children. There are some 42 million cases annually and an estimated 75,000 deaths across the globe due to amoebic dysentery alone. It can be caused by a number of infectious agents ranging from viruses and bacteria to protozoa and parasitic worms. In this article we will consider Dysentery as Pravahika. In this disease vomiting, watery diarrhea may result in rapid and severe dehydration, which may lead to shock and death if not treated. Many medicinal plants are reported in Ayurveda that provides as whole protection against dysentery naturally without any side effects and gradually helps to recover. Here we have reviewed some Ayurvedic remedies for management of Dysentery.

**Keywords**: Dysentery, etiological factors, Pravahika, complications, Ayurvedic remedies.

**INTRODUCTION**

Dysentery is one of the oldest known gastrointestinal disorders, having been described as early as the Peloponnesian War in the fifth century. Dysentery is a common but potentially serious disorder of the digestive system which results in major complications if it is not treated. Dysentery can have many causes such as bacterial, protozoal, viral infections. Bacillary dysentery is type of dysentery which is also called shigellosis. Shigellosis is caused by one of several types of bacteria’s such as Shigella sonnei, Shigella flexneri, Shigella dysenteriae, E.coli, Yersinia etc. Bacillary dysentery is spread via contaminated food or water and is an extremely contagious, dangerous bacterial infection of the colon. Amoebic dysentery is also known as intestinal amoebiasis which is mainly caused by parasite, Entamoeba histolytica. This parasite usually enters the body during the cyst stage of its life cycle. The cyst may be found in food or water contaminated by human feces. Once the digestive tract, the cyst break down, releasing an active form of the organism called trophozoite. The trophozoites invade the tissues lining the intestine, where they are usually excreted in the patient’s feces. They sometimes penetrate the lining itself, however and enter the bloodstream. If that happens, the trophozoits may be carried to the liver, lung, other organs. Involvement of the liver or other organs is sometimes called metastatic amebiasis. The amoeba can exist for long periods of time in the large bowel (colon). Other causes of dysentery viruses which is also called gastroenteritis and it including rotaviruses, calciviruses, astroviruses and adenoviruses etc. Dysentery
caused by parasitic worms like whipworm (Trichuriasis) and flatworm or fluke (Schistosomiasis) may produce the abdominal cramps associated with dysentery.

In this article we will consider dysentery as pravahika. When VataDosha gets increased and associating with Kapha produces the disease called “Pravahika”. It is mainly causes by a genetic khavaigunya in the digestive tract along with dietary and lifestyle factors, notably a high fat diet and smoking. According to the Ayurveda, pravahika is characterized by bahu-sam (frequency), alpalapam (small quantity), sashulam (with pain), sapravahikam (staining i.e. a very intense urge again caused by the irritant effect of mucus), saraktam (blood instool), sapicham (jelly-like mucus), upveshyte (urgency of defecation).[1]

MANAGEMENT OF DYSENTERY BY AYURVEDIC REMEDIES:

Treatment of pravahika is carefully described both Sushruta and Vagbhata. There are medicinal plants can be used both rectally and orally in this disease.

Alstonia scholaris (Saptaparn)
The bark of Alstonia scholaris is very useful in dysentery. It contains more alkaloids including reserpine, echitamine, alstonine and others. Dita bark is used as astringent, tonic, alternative. It is Tikta (bitter) and Ka-

shaya (astringent) in Rasa (taste) and light (laghu), snigdha in characteristics (Guna). It helps to alleviate Kapha and VataDosha and acts as an appetite (Dipana). To evaluate the antibacterial activities, Alstonia scholaris (R.br.) chloroform extracts were screened against twelve human pathogenic bacteria by disc diffusion method. In that research study the chloroform extract was found very active against Shigella dysenteriae (14mm) and Shigella boydii (13mm).[2] Khan et al (16) also reported that antibacterial activity of the butanol fractions of crude methanolic extract of leaves, stem root, bark of Alstonia scholaris.[3]

Holarrhena antidiysenterica (Kutaj)
The efficacy of H. antidiysenterica in chronic and amoebic dysentery has been estabished. The bark is astringent, antidiysenterica, stomachic, febrifugal, tonic properties. The principle alkaloid of Kurchi is conessine. The other alkaloids reported to be present in the Kurchi bark are: conamine, konkurchine, connessimine, kurchine, conarrhinine, holarrhinen and isoconcessimine. Conessine from the bark kills free-living amoebae and also kills Entamoeba histolytica in the dysenteric stools of experimentally infected kittens. It is markedly lethal to the flagellate protozoan. Various fractions of H. antidiysenterica showed promising activity against experimental amoebiasis in rats and hamsters. [4] Aqueous and alcoholic extracts of stem bark of Holarrhena antidiysenterica was observed by some researchers at concentration of 200, 300, 400, mg/ml against the enteric pathogens like Shigella flexneri, S.boydii, S.aureus, in punch well and agar dilution methods along with viable cell count were carried out and in this study best inhibitory effect was demonstrated at concentration of 200 mg/ml of agar.[5]

Aeglemarmelos (Bilva)
The fruit of Aegle marmelos have little effect in acute Dysentery when there is definite sensation to defecate without the significant amount of faeces, blood and mucus alone are passed. This herb is high in tannin, which is effective in treating dysentery. It is digestive and helps to alleviate Vata Dosha. The fruit powder is specially use in sub-acute or chronic dysentery so that blood with stool gradually disappears and the stools resume a more feculent and solid form.[6] In the vitro study performed by MIC method ethanolic extract of dried fruit pulps showed significant activity against the causative factors of dysentery such as Shigella boydii, Shigella sonnei and S. flexneri, moderate against S. dysenterae.[7] In the bacillary dysentery sweet drink made from the pulp of the Agle marmelos fruit produce soothing effect in patient’s body.[8] Its use has also been reported in the cases of amoebic dysentery.[9]

Semeicarpus anacardium (Bhallataka)

Semeicarpus anacardium is act as an appetizer (Dipan) and Pachan due to its Ushna (hot), Tikshna Guna (properties) and Katu-Rasa, but it is contraindicated in Raktaajpravahika. It helpsto alleviate Kapha in the body. Mohata et al. was found the petroleum ether and aqueous extract fractions of Semeicarpus anacardium by disc diffusion method showed inhibitory activity against Staphylococcus aureus(10mm) and Shigella flexneri (16mm) at 100mg/ml concentration.[10] Subsequent studies have shown that the alcoholic extract of different parts of Semeicarpus anacardium also possess activity against the bacteria causes for dysentery, especially the leaf extract. [11]

Salmalia malabarica (Shalmali)
The ancient authors used the leaves, flowers, gum (Mocharasa) of Salmalia malabarica in preparation of Picchabasti for alleviation of Kapha. (Cha. Chi. 19/117). The Salmalia malabaricabark juice was mixed with the bark juice of mango and guava drunk to cure dysentery and intestinal spasm.[12]

Ocimum sanctum (Tulsi)

Ocimum sanctum is considered to be the queen of herbs due to its greater medicinal value. It possesses the wound healing property of large intestine. Ocimumsanctum is considered to be the queen of herbs due to its greater medicinal value. It contains essential oil, eugenol, carvacol, methyl eugenol, coryphyllene which are mainly responsible for antibacterial activity against Escherichia coli, salmonella typhi, Shigelladaysenteriae within specified contact time.[13]

Acacia nilotica wild (Babbul)

Acacia Nilotica It is an important multipurpose tree. Its stem bark is demulcent, astringent used in dysentery, diarrhea and Gum used in amoebic dysentery. B.mahesh found the antimicrobial activity of the extract of Acacica nilotica against the causative bacteria of dysentery such as Shigella sonnei, Bacillus subtilis. [14]

Terminalia chebula (Haritaki)

Terminalia chebula is very useful in digestive system disorders. It is mainly astringent in taste and all tastes except salty and Laghu (light), Ruksha (dry). Due to which it increases the digestive fire and clears undigested residues (Ama) and mitigate Vata. Haritaki is an effective purgative when taken in powder, but when the whole dried fruit is boiled the resulting decoction is grahi, useful in the treatment of dysentery. It promotes good colon health and acts as laxative without causing cramp or irritation. It gently stimulates the intestinal wall and restores tone to the colon, thus helping in the elimination process and providing a colon cleansing effect. To evaluate antiamoebic
activity of crude drug of Terminalia chebula was investigated in experimental caecal amoebiasis rat model with curative rate of 89% at 500 mg/kg body weight due varying degrees of inhibition of enzyme activities such as DNase, RNase, aldolase, alkaline phosphatase, acid phosphatases protease in axenically cultured amoebia.[15] In some studies Ethanolic extract of Terminalia chebula fruit was found effective against both Gram positive and Gram negative bacteria.[16]

**Tripala Powder**

Tripala is a widely prescribed Ayurvedic drug and is used in the ailment of all Doshas. Tripala is composed of the three fruits namely Haritaki (Terminalia chebula), Bibhitaki (Terminalia bellirica), Amalaki (Emblica officinalas). Tripala corrects constipation, cleanliness and tones the gastrointestinal tract. It detoxifies the whole body and improves digestion and assimilation. Srikumar et al. demonstrated the antibacterial effect of aqueous and ethanol extract of Tripala powder and its individual components against Shigella sonnei, Shigella flexneri, Staphylococcus aureus.[17]

**Tinospora cordifolia (Guduchi)**

Tinospora cordifolia is also very useful in the treatment of chronic diarrhea and dysentery.[18]

**Acorus calamus (Vacha)**

Acorus calamus is the sweet and aromatic rhizomes of sweet flag, growing in marshy places. Calamene is a crystalline alkaloid in the rhizome useful in dysentery. Acorus calamus is also used for treating indigestion and as appetite stimulant. It gives relief to heavy stomach by relieving flatulence, colic and increasing appetite. For chronic dysentery, the root infusion can help effectively. The leaf and rhizome part of Acorus calamus was found to possess the antibacterial effect. The methanolic extract of Acorus calamus showed the inhibitory effect against the bacterial strains which are causative factors of dysentery.[19]

### RESULT AND OBSERVATIONS

Above studies observe that many of the Ayurvedic medicinal plants possess antibacterial and antiamoebic activity and they gradually help to recover from dysentery. The most of plants are Katu-Tikta-kashaya Rasatmak which is very useful for Dipan (Correcting Agni digestive fire), eliminating Ama (toxins) from the body and balancing the Doshas.

### DISCUSSION AND CONCLUSION

The results of research article strongly indicate that number of medicinal plants are reported in Ayurveda that provides as whole protection against dysentery naturally without any side effects. According to the Guna, Karma of these medicinal plants, it is seen that they will be used in Vata and Kapha Dosha pradhan samprapti of Pravahika. Clinical trials using these herbs for a variety of conditions should also be conducted.

### REFERENCES:


5] M. Ballal, D. Srajan, K.K. Bhat, A.Shirwaikar, P.G. Shivananda. Antibacte-
rial activity of Holarrhena antidysenterica (Kurchi) against the enteric pathogens.


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