



Case Study

Clinical Efficacy of Safoof-e-Teen in Acute Diarrhea (Is'Haal-e-Haad) – A Case Study

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Objective: In unani system of medicine, acute diarrhea is mostly considered as Is'haal-e-Safravi (bilious diarrhea) which is caused by Insebaab-e-Safra (infiltration of bile) into stomach and intestine. Safoof-e-Teen is a herbomineral Unani pharmacopeal formulation which is claimed that it stops bilious and bloody diarrhea rapidly. The aim of this paper is to evaluate the efficacy of Safoof-e-Teen in a patient with acute diarrhea.

Case Study: A 2 years old child having acute diarrhea, visited to Govt. Unani Dispensary, Bheemganj Mandi, Kota, Rajasthan, India, for treatment. He suffered from yellowish, watery stool at every half hour approximately 25-30 times in a day since last 45 days. He was treated with Safoof-e-Teen 3 gm. in the form of zulal (infusion) with plane water twice a day on empty stomach orally for 5 days.

Result: Stool passed out after 4 hours with semisolid in consistency and Frequency of passing stool was reduced as 10-15 times in 1st day. Frequency of passing stool was further reduced as 7, 5, 3 and 2 times in 2nd, 3rd, 4th, and 5th day of treatment respectively with solid in consistency of stool. Thus clinical improvement was excellent and significant

Conclusion: Safoof-e-Teen is safe and effective in the treatment of Diarrhea (Is'haal) as a potent anti-diarrheal drug.

KEY WORDS: Diarrhea, Is'haal, Safoof-e-Teen, Unani System of Medicine.

1. INTRODUCTION

Diarrhea (Is'haal) known as Zarb-o-Khilfah, is the passage of liquid or watery stool more than three times a day.¹⁻² Acute diarrhea (Is'haal-e-Haad) is defined as diarrhea of presumed infectious origins that begins acutely and lasts for 14 days or more. It is called persistent diarrhea also.²

In India, rotavirus and enterotoxigenic E. coli account for nearly half the total acute diarrheal episodes as causative agents among children. Apart from enterotoxin producing E. coli (ETEC) which account for nearly 20 % of childhood diarrheas. Other forms of diarrheagenic E. coli are enteroinvasive (EIEC), enterohemorrhagic (EHEC), attaching effacing E. coli or localized adherent (LA-EC), diffusely adherent E. coli (DA-EC), and aggregative

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adherent E. coli (Agg-EC). Shigella and Salmonella species are isolated in 3-7 % of childhood diarrheas. The other bacterial agents causing diarrhea include Campylobacter jejuni, Yersenia enterocolitica and Aeromonas hydrophilia. Giardia lamblia rarely causes acute diarrhea.²

In unani system of medicine acute diarrhea mostly considered as Is'haal-e-Safravi (bilious diarrhea) caused by Insebaab-e-Safra (infiltration of bile) into stomach and intestine and as Zalaq-ul-Medah caused by warm-e-haar (acute inflammation); may be safravi (bilious) or damvi (bloody), samoom-e-harrah (hot toxins) of stomach and Insebaab-e-khilt-e-akkaal (infiltration of corrosive humor) into stomach.^{1, 3-4}

The two main risks of diarrhea are malnutrition and death. Dehydration is the most common cause of death due to diarrhea. A significant number of deaths occur as a result of malnutrition consequent to a series of diarrhea. Significant dehydration disturbing the balance of electrolytes and acid-base status of the body occurs in about 2-5 % of all cases of diarrhea.²

In Unani System of Medicine, Is'haal (diarrhea) is treated with the drugs having their pharmacological properties as Qabiz (astringent), Habis (styptic).³⁻⁴

2. CASE STUDY

A 2 years old child having diarrhea, visited to Govt. Unani Dispensary, Bheemganj Mandi, Kota, Rajasthan, India, for treatment. He suffered from yellowish, watery stool at every half hour approximately 25-30 times in a day since last 45 days. During this period 2 upper and 2 lower incisor teeth have erupted and reduced 2 kg of body weight. The diagnosis was Is'haal-e-Safravi (bilious diarrhea) as per Unani concept while according to recent concept it was acute diarrhea, already established by stool examination as culture and finding showed as microorganism E. coli positive. Before coming under my study Patient has been treated through modern medicine by antibiotics, binding agents, anti-motility agents and anti-secretory agents but he has got no relief in frequency and consistency of stool. However vitals were normal and no sign of dehydration due to regular intravenous fluid therapy has been taken.

Safoof-e-Teen is a herbomineral Unani pharmacopeal formulation and prepared according to Bayaz-e-Kabeer Volume-2 in Ayurved Rasayan Shala Ajmer Rajasthan, supplied to the Govt. Dispensary kota, Rajasthan. It is claimed that it stops bilious and bloody diarrhea rapidly.⁵⁻⁶ Keeping this fact an attempt has been made to evaluate the clinical significance of this drug in a case of acute diarrhea (Is'haal-e-Haad). Its ingredients are as follows;

Unani Name	Scientific Name	Parts Used
Bazr-e-Qatoona (Ispgol)	PlantagoovataForsk	Seeds
Tukhm-e-Reehan	Ocimum sanctum Linn.	Seeds
Tukhm-e-Hammaz	Rumexvesicarius Linn.	Seeds
Nashastah	Triticumaestivum Linn.	Seeds

Samag-e-Arabi	Acacia Arabica Lam.	Gums
Gil-e-Armani	Armenian bole	Crystals
Tabasheer	Bambusaarundinacea Retz.	Crystals

Ingredients of Safoof-e-Teen⁵⁻⁶

The patient has been prescribed to take 3 gm. Safoof-e-Teen in the form of zula (infusion) with plane water twice a day on empty stomach orally. No concomitant therapy was allowed during treatment.

3. RESULTS AND DISCUSSION

After given the 1st dose of Safoof-e-Teen to the patient, stool passed out after 4 hours with semisolid in consistency and Frequency of passing stool was reduced as 10-15 times in 1st day. Frequency of passing stool was further reduced as 7, 5, 3 and 2 times in 2nd, 3rd, 4th, and 5th day of treatment respectively with solid in consistency of stool. On the basis of these observations it is resulted that Safoof-e-Teen markedly reduced the volume and frequency of stool in diarrhea during study. Thus clinical improvement was excellent and significant. Safoof-e-Teen was found to be safe and effective. The beneficial actions of Safoof-e-Teen can be attributed to the presence of complex spectrum of actions including Qabiz (astringent), Habis (styptic), Mujaffif (cicative) and Musakkin (seddative) activities in its ingredients through increase intestinal absorption and reduce intestinal movement.

Safoof-e-Teen is commonly used in bilious and bloody diarrhea as Qabiz (astringent), Habis (styptic) activities. Bazr-e-Qatoona (PlantagoovataForsk seeds) has been used in diarrhea (Is'haal) as Qabiz (astringent) and Musakkin (seddative) activities.^{7,8,9} It is investigated the Pysilium seeds contain over 30% of hydrocolloidal polysaccharide (mucilage) in the outerseed coat which has powerful ability to retain water and it absorbs excess liquid in the intestines and helps to add bulk to the stool.¹⁰

Tukhm-e-Reehan (Ocimum sanctum Linn. seeds) may effective in acute diarrhea against E. coli by its Dafey-e-Ta'affun (antiseptic) activity.⁷ It may helpful to retain cardiac function via its muqawwi-e-qalb (cardioprotective) activity, to avoid complication of dehydration, in which cardiac output becomes very low.^{2,7}

Tukhm-e-Hammaz (Rumexvesicarius seeds) possess Qabiz (astringent) and Musakkin (seddative) activities, can be mediated to the presence of alkaloids, flavonoids, triterpinoids carbohydrates, tannins, phenols, gums and mucilage. Although the anti-diarrhoeal properties of the reported active terpenoids are well established. Sesquiterpenes, diterpenes, terpenes, flavonoids and terpenoid derivatives are known for inhibiting release of autocoids and prostaglandins, thereby inhibit the motility and secretion.^{7,11}

Samag-e-Arabi (Acacia arabica Lam. gums) is useful in diarrhea as Qabiz (astringent) and Habis (styptic) properties. It is revealed that Gums contain galactose, L-rhamnose, L-

arabinose and aldobiouronic acids, which may play a role in Qabiz (astringent) and Habis (styptic) actions.^{7,12}

Gil-e-Armani (Armenian bole) has been used in diarrhea as habis (styptic) and mujaffif (ciccative) properties.⁷

Tabasheer (Bambusa Arundinacea) has proposed qabiz (astringent) and mujaffif (ciccative) activities.⁷ It is demonstrated that Tabasheer, a siliceous secretion contains silicate (SiO₂) up to 90.56%, used to check diarrhea.¹³

Nashastah (Triticumaestivum Linn.) is indicated in diarrhea and biliousness as antidiarrheal and anti-biliousness activity.¹⁴

4. CONCLUSION

It is concluded that Safoof-e-Teen is safe and effective in the treatment of Diarrhea (Is'haal) as a potent anti-diarrheal drug. Further studies of large sample size in this direction are needed to understand the better efficacy and to explain the mechanism of action of Saffof-e-Teen in Diarrhea (Is'haal).

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