Efficacy of New Diarex in Diarrhoea

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ABSTRACT
Diarrhoea is a major public health problem in developing countries. An estimated 1.3 billion episodes of diarrhoea occur each year. Diarrhoeal diseases cause a heavy economic burden on health services. In developing countries, diarrhoea is almost universally infectious in origin. Appropriate clinical management of diarrhoea includes oral rehydrate therapy and chemotherapy.

New Diarex is a formulation, which is known to possess several antidiarrhoeal properties. This clinical trial has shown that most of the patients treated with New Diarex recovered from the problem of diarrhoea within 2 to 3 days. No side effects were reported by any of the patients.

Key words: Acute diarrhoea; New Diarex; oral rehydration therapy; gastroenteritis; Enterotoxin

INTRODUCTION
Infections of the gastrointestinal tract produce a variety of symptoms and can be due to a large number of different infective agents. The most common symptom is diarrhoea, which leads to considerable morbidity and mortality worldwide. Recurrent bouts of gastroenteritis lead to nutritional deficiencies, while malnutrition may increase susceptibility to further infections; the cycle ultimately results in significant mortality and morbidity. The types and severity of gastrointestinal infections are determined by a variety of epidemiological factors. Different age groups will have different risks with the extremes of age being the most vulnerable. Underlying medical conditions, such as autoimmune diseases and patients receiving immunosuppressive drugs including corticosteroids, may influence the response to infections. Over crowding and poor sanitation predispose to gastrointestinal infection. Certain organisms such as Entamoeba histolytica are more common in tropics and temperate regions. When bacterial and protozoal pathogens are not recovered from faeces, so called non-specific diarrhoea is usually considered to be of viral aetiology. However, enterotoxin-producing strains of E. coli which are not distinguishable from normal flora may account for a number of
cases that are usually ascribed to viral infection. The main stay of managing diarrhoeal diseases is the recognition and correction of water and electrolyte depletion, anti-diarrhoeal agents and antimicrobial chemotherapy. A herbomineral formulation containing Holarrhena antidysenterica, Aegle marmelos, Cyperus rotundus, Punica granatum, Shank bhasma and Tinospora cordifolia formulated by The Himalaya Drug Company, was evaluated for its efficacy in treating diarrhoea in a simple design open clinical trial.

MATERIAL AND METHODS
Fifty one patients presenting with loose stools of varied aetiology were included in this study. After a detailed history and examination, the patients were prescribed tablets New Diarex at a dose of 1 tablet three times daily for a period of 5 days. Stool examination was done in all cases before and after treatment. Haematological parameters were investigated in patients who had clinical signs of anaemia. The patients were followed up daily for 7 days and thereafter every week upto eight weeks to rule out the early recurrence of diarrhoea. The patients were advised to report immediately any side effects they experienced during the therapy with New Diarex. No other medications except oral rehydration therapy were given to the patients.

RESULTS
The clinical examination and stool examination revealed that 48 patients had acute diarrhoea and three had chronic diarrhoea. In acute diarrhoea, there were 25 patients of non-specific diarrhoea and 23 patients of infective diarrhoea. Amongst infective diarrhoea, 15 had bacterial dysentery and 8 had protozoal infection. One patient had ascariasis. The frequency of diarrhoea amongst these patients varied from 8-10 times a day in severe and 4-5 times a day in moderate cases. At the end of the study, it was observed that 3 patients were lost for follow-up. Most of the patients started responding to the drug right from the second day of the treatment and diarrhoea was completely controlled from 2nd to 3rd day of the treatment. The 23 patients who had abdominal griping and pain were relieved. The stool examination of the subjects with Entamoeba showed negative results after 7 days of treatment (Table 2). The post therapy stool examination of the patient with ascariasis showed absence of ova. At the end of the study it was observed that all the patients reported to have recovered from symptoms of diarrhoea from the next day onwards. However, 28 patients were followed up for 3 weeks, 15 were followed for 1 month and 5 were followed for 8 weeks’ duration. There was no recurrence of diarrhoea amongst all these subjects. None of the subjects reported any side effects following treatment with New Diarex.

DISCUSSION
The ancient Indian system of medicine has long been using herbs and minerals to cure various disorders ailing human being. Ayurveda has described remedies well known for their efficacy in treating diarrhoeal disorders of both chronic and acute origin. Modern research has proved the efficacy of these herbs. Aegle marmelos is proved to be an excellent and effective remedy in controlling acute diarrhoea. It contains a large amount of tannins which effectively control nonspecific diarrhoeas. Holarrhena antidysenterica along with Aegle marmelos and other
herbs is known to help control diarrhoea. \(H. \text{ antidysenteric}\) has been found to be more effective in treating \(Entamoeba \text{ histolytica}\) positive patients compared to another herb \(Hemigraphis \text{ birta}\). A combination of \(Aegle \text{ marmelos}\), \(Punica \text{ granatum}\), \(Tinospora \text{ cordifolia}\) along with other herbs is known to have potential antispasmodic activity. In addition, \(Punica \text{ granatum}\) has shown anthelmintic activity in \textit{in vitro}\ studies and antimicrobial activity against \(E. \text{ coli}\), \(Staphylococcus \text{ aureus}\), \(Pseudomonas \text{ aeruginosa}\) and \(Candida \text{ albicans}\). \(Tinospora \text{ cordifolia}\) is known to be active against \(Entamoeba \text{ histolytica}\). The results of this study suggest that New Diarex is effective in controlling not only non-specific diarrhoea but may also resolve amoebic dysentery. The abolition of ascariasis infection enhances the broad-spectrum activity of this drug. The prevalence of a large number of cases infected with \(Entamoeba\), points to poor social status, inadequate sanitation and bad hygiene of the studied group. Though this trial had too small a number of patients to claim total effectiveness of New Diarex against these organisms, its efficacy can be further confirmed in long term clinical trials.

**REFERENCES**


