

Inter-relationship of
Diarrhoeal diseases and Malnutrition
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Diarrhoeal disease continue to be a major cause of death among children under 5 years of age. In 1983 there were around 6000 deaths per year in Sri Lanka due to Diarrhoeal Diseases. After 5 years of the Diarrhoeal Diseases Control Programme the deaths from diarrhoeal diseases have now come down to about 2000 deaths per year.

Surveys done in 1983 showed that the diarrhoeal disease attack rates for children under 5 years of age was around 1 to 1.5 episode of diarrhoea per child per year. This attack rate has been constant over the years.

The interrelationship of diarrhoeal disease and Malnutrition has been the subject of several international symposia in the recent times. This interrelationship is much more evident in the chronic or protracted diarrhoeas than in the Acute diarrhoeas.

I shall first discuss the interrelationship of malnutrition and acute diarrhoea which is still the much commoner in Sri Lanka. The short term strategies of the diarrhoeal diseases control programme are:-

1. Reduction in the deaths from acute diarrhoeal diseases.
2. Prevention of deterioration of the nutritional status during acute diarrhoeal disease.

The first is been effectively tackled by the rational approach advocated by the Diarrhoeal Diseases Control Programme for the prevention and treatment of dehydration, and is now practiced by most of the peripheral level health workers. These are:-

1. Prevention of dehydration by the use of Home Based Fluid.
2. Rapid rehydration of Mild and Moderate dehydration by the use of ORS or Jeevane.
3. Intravenous therapy for severe dehydration.

However the attention given to the prevention of deterioration of the nutritional status during episodes of acute diarrhoea has not been so widespread.

The nutritional consequences of acute diarrhoea are due to several factors.

1. Decreased intake of food. Loss of appetite.

2. Withholding of food.
3. Loss of major nutrients.
4. Increased catabolism in response to infection.

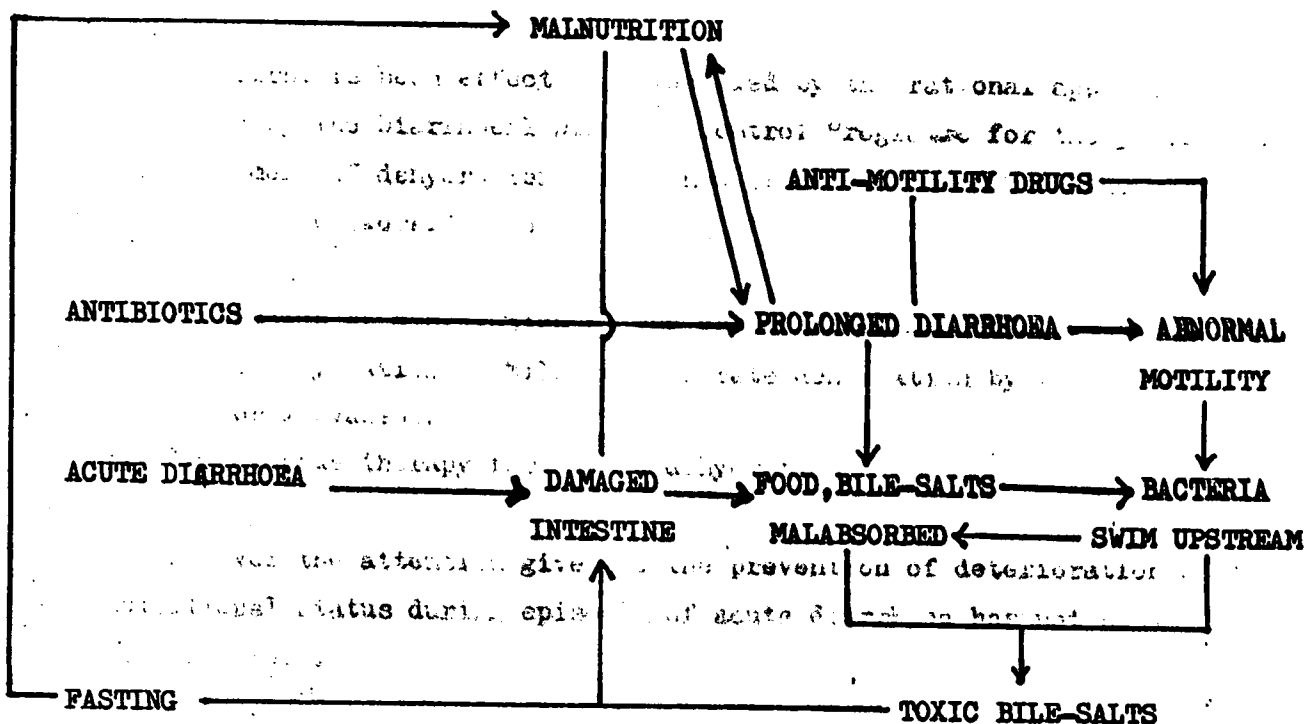
In Sri Lanka withholding of food continues to be an important factor.

It is expected that the introduction of " Super ORS ", which is now under clinical trial, to the management of acute diarrhoea would be of some help in this direction.

Whether the presence of malnutrition increases the incidence of acute diarrhoea continues to be debated. However the fact that the presence of malnutrition prolongs the duration of the diarrhoea is now well authenticated. The mechanism for this is now quite clear.

With the gross reduction of the number of children with acute diarrhoea admitted to our Paediatric Wards, the problem of protracted diarrhoea and its interrelationship to malnutrition has come into sharper focus. The prevention and management of this ever increasing problem of protracted diarrhoea has become a therapeutic challenge for most of us.

A working model of Protracted diarrhoea is as shown in the diagram.



A MODEL OF PROLONGED DIARRHOEA