TRANSIT TIME AND ABSORPTION OF NUTRIENTS IN CHILDHOOD DIARRHOEA

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Fifty children below 5 years of age suffering from acute diarrhoea of varying etiology were subjected to measurement of mean transit time in order to determine its relationship with the absorption of nitrogen, fat and calories. After initial intravenous hydration the patients were fed a charcoal marker and the time taken for its appearance in stool was considered as the transit time. Test meal consisting of familiar items of food were also offered at the usual meal time. The study was repeated at three weeks after recovery.

The mean transit times during the acute stage and after recovery respectively in cholera were: 6.4 (± 3.7) vs 15.5 (± 10.6); in ETEC: 5.4 (± 2.5) vs 10.6 (± 7.6); in rotavirus : 5.2 (± 3.5) vs 10.6 (± 7.6) and in diarrhoeal disease of multiple aetiologies was 4.2 (± 1.7) vs 12.6 (± 7.2) hours. In the acute stages of all aetiologies the results indicate that there were significantly less absorption of all nutrients with shorter transit time and vice versa. Also there were significant improvement of absorption during the convalescent period compared to those in acute diarrhoeal stage.

3rd Asian Conf of N+VN. (1990)