

ELECTROLYTE LOSS IN PAEDIATRIC DIARRHOEAS

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The aim of this study is to determine the stool electrolyte composition of different paediatric diarrhoeas and to formulate appropriate fluid therapy. Electrolytes were determined from catheter specimen of stool from children upto 5 years admitted with cholera, E.coli and rota virus.

This study reports the electrolyte composition of stool, their relationship with purging rate in 65 non cholera patients; and compares them with 25 proven cholera patients. The mean purging rate (ml/kg/8hr) was 172 mls in cholera patients and 71 mls in non cholera group. The mean stool sodium in the cholera group was 99.5 mMole/l, and in non cholera group was 59.6 mMole/L. The mean potassium concentration in the rota virus diarrhoea was 38.6 mMole/L, which is 10 mMole/L higher than cholera as well as other non cholera diarrhoea. Ten patients with cholera were compared with ten rota virus patients both having a mean purging of 112 mls/kg/8hr. The mean stool sodium concentration in cholera was 82 mMole/L and in rota virus 58.9 mMole/L. The difference between the mean sodium concentration is statistically significant ($p < 0.05$). The sodium concentration in the cholera stool was highly correlated ($r = 0.77$; $p < 0.01$) with the purging rate.

These results thus suggest that stool sodium concentration in non cholera diarrhoea of various aetiology is related more with the pathophysiology of the disease than with the purging rate.