A Comparative Evaluation of Protective Ability of Axenic and Monoaxenic Antigens in Experimental Amoebiasis

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Krupp (1974) has demonstrated that immunization of guinea pigs with amoebic antigen prepared from axenically grown amoebae conferred protection against the challenge of *Entamoeba histolytica*. The same workers fractionated the whole amoebic antigen and demonstrated that Fraction-I conferred complete protection against *E. histolytica*. The present study was carried out to compare the protective ability of whole axenic antigen and amoebic antigen prepared from amoebae grown with bacteria in cultures. While the percent infectivity was similar in two groups of animals, the severity of lesions was of greater intensity in animals immunized with monoaxenic antigen. The monoaxenic and axenic antigens have been fractionated on Sephadex G-200 column. These fractions have been assayed for their protective ability against E. histolytica infection. I.H.A. titres of the purified fractions of axenic antigen and amoebic antigen prepared from amoebae grown with Torsena have been compared. Significance of these results will be discussed.

Oral Therapy in Children : A Comparative Study of 60, 90 and 120 mMols of Sodium/L of Glucose—Electrolyte Solution

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In an attempt to answer the question of optimal sodium concentration in the oral solution particularly in young children who suffer mostly from Rotavirus diarrhoea, a prospective study was conducted on children from 6 months to 2 yrs of age (average 1 yr) with acute diarrhoea. Three different oral solutions containing 60, 90 & 120 mMols of Na/L were tested. These groups were found comparable as to age, initial severity of dehydration, duration of diarrhoea prior to admission, and with respect to Hct, Pl. Sp gr, serum electrolytes. Patients in all groups maintained their hydration and electrolyte balance. However there were 2 cases from Na 120 group with hypernatremia > 150 mMols Na and these two cases were admitted with high serum Na (<145 mMol/l). No significant difference was observed in fluid intake or purging rate/kg body weight. A highly significant difference ($P < 001$) was observed in both stool and urinary sodium excretion after 24 and 48 hrs of oral therapy with high and low sodium containing oral solutions. Those who received fluid with a high sodium concentration excreted more sodium through stool and urine in comparison to low sodium group. We conclude that (1) infantile diarrhoea with 5-7½% dehydration mostly from Rotavirus infection can be managed orally with any one of the above solutions provided free water is supplied at libitum as the kidney can handle extra load of salt. (2) Hypotonic oral solution containing 60 mMols of Na/L can safely be used without any danger of hyponatremia.