IMUNOLOGIA VIRAL

PROTECTION AGAINST ROTAVIRUS GASTROENTERITIS
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Female mice inoculated intraperitoneally with purified rotavirus SA11 at mating time developed rotavirus-specific serum antibody responses reaching high levels at the time of delivery. Newborn litters from immunized dams and from matched non-immune controls were inoculated when five days old with 10⁵ TCID₅₀ of SA11. Litters from non-immune dams showed profuse diarrhoea and extensive intestinal damage whereas those from immune dams developed very mild diarrhea with minimal pathological lesions. This system provides an experimental model for the investigation of the role of maternal antibodies derived from serum, colostrum or milk in the protection of newborns and for the study of cross-protection after challenge with rotaviruses of different serotypes.

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IMMUNE RESPONSE IN CASES OF REINFECTION BY ROTAVIRUS
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During a cohort study to evaluate the clinical and epidemiological features of rotavirus infection, 70 children were followed from birth up to three years of age. It was of particular interest to examine the immune response of eight children who suffered sequential episodes of reinfection with rotavirus. The group examined was from a low social economic status residing in Belém, Pará, Brazil, an area of hot tropical conditions with a high level of humidity. Antigen and antibody detection were performed using an immunoenzymatic assay.

Among the results obtained from the present project, the most relevant were that (i) antibodies to rotavirus were passively transferred from the mother via the placenta and declined progressively within the first six months of life, (ii) following the first infection with rotavirus it was possible to characterize three types of immune responses in those children who were reinfefted: five of them had a transient (or temporary) presence of antibodies, two, showed an apparently permanent response, and, one, did not produce antibodies, (iii) after reinfection seven of the children developed a permanent presence of antibodies and the other had a transient response.

Presently, it is difficult to establish the correct explanation for the absence of complete and protective immunological response, however, it is possible to attribute this fact to a lack of immunogenicity of the virus strain or to a temporary physiological immunodepression at the time of the primary infection. The present study is a preliminary observation which needs to be expanded and further studied taking into account different factors which may influence episodes of reinfection with rotaviruses both in children and adults.

PRELIMINARY PRODUCTION OF MONOCLONAL ANTIBODIES AGAINST THE WA STRAIN HUMAN ROTAVIRUS
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In July/August of this year we have been able to produce some monoclonal antibodies against the Wa strain of human rotavirus. Hybridoma cell lines were prepared by the fusion of mouse myeloma cells (NSO) with lymphocytes from Balb/c mice immunized with an enriched preparation of Wa rotavirus. Using essentially the standard procedure described for Milstein and Kohler, several clones of viable hybrid cells were produced in the hypoxanthine-aminopterin-thymidine selection medium. The screening for the rotavirus positive hybridomas was made by ELISA. Some rotavirus positive