Primeira Conferência Internacional Sobre o Impacto das Doenças Virais no Desenvolvimento dos Países Latino-Americanos e da Região do Caribe

ANÁIS
ABSTRACTS

First International Conference on the Impact of Viral Diseases on the Development of Latin American Countries and the Caribbean Region

1982

Rio de Janeiro - Brasil
Diarrhoea is the leading cause of infant morbidity in many Caribbean islands with reported rates exceeding 50 per 1,000 children under 5 years of age in 10 countries in 1978. It is the leading or second cause of death in most of these countries.

Over a two year period 397 infants less than 3 years old with gastroenteritis admitted to hospitals in Trinidad, Guyana and St.Vincent were investigated for the presence of certain micro-organisms in the faeces along with an equal number of age and sex matched controls.

Rotavirus was detected in 21.7% of cases and 0.8% of controls; Salmonella in 7.3% of cases and 0.8% of controls; Shigella in 5.5% of cases and in no control and enteropathogenic E. coli in 14.9% of cases and 8.8% of controls. Campylobacter fetus subspecies jejuni was cultured from 7 out of 60 cases examined and from 1 of 60 controls. Enterotoxigenic E.coli, cytopathic enteroviruses and adenoviruses, and faecal parasites were not significantly associated with diarrhoea.

While causing an illness of shorter duration and a milder degree of dehydration than the bacterial pathogens, rotavirus was nevertheless detected in 5 fatal cases and because of its greater prevalence was responsible for a greater drain on the health resources of these countries.

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DIARRHOEA ASSOCIATED WITH ROTAVIRUS IN THE AMAZON REGION. A.C. Linhares, Y.B. Gabbay, F. de Paula Pinheiro, Instituto Evandro Chagas, Belem, Para, Brazil.

Rotaviruses have been detected in three places in the Amazon region: Belém, Santarém and Tiriyo (an Indian village). In 1975, faecal samples were collected from 25 children with acute gastroenteritis, living in Belém, Brazil, for preliminary investigation and these specimens were examined for viral, bacteriological and parasitological agents. Rotaviruses were detected, by electron microscopy and ELISA, in 4 (16%) of 25 faecal samples. In two specimens no other enteropathogens other than rotavirus were detected.

During July and August 1977, there was an outbreak of acute diarrhoea that occurred in an isolated population - the Tiriyo Indians - who live in the north of Para, Brazil, near the border with Surinam.
The epidemic was explosive, affecting children and adults, possibly 88% of the population. Seroconversions were noted in 127 (75.6%) of 168 paired serum samples tested for rotavirus antibody by counter immunoelectrophoresis. With immunofluorescence based on neutralization tests, rotavirus, serotype 1 (Birmingham) was shown to be associated with the epidemic. It was noted that infection by this agent boosted type 3 antibodies but this was most apparent in persons with pre-existing type 3 titers and the boost was not as great as with type 1. Rotaviruses were also detected by ELISA, in faeces from 2 (12.5%) of 16 faecal samples collected from patients with acute diarrhoea from Santarém, Brazil, during an outbreak that occurred in November 1977. Between January 1979 and December 1980, rotaviruses were detected in faecal specimens from 122 (33.1%) of 369 diarrhoeic children, less than 6 years old, in Belém. In 55 (45.1%) of 122 rotavirus-positive specimens, no bacteria or parasites associated with gastro-enteritis were found. Rotaviruses were readily detected throughout the year which may indicate no seasonal pattern of incidence in this region of North Brazil.


The aetiological role of rotavirus and adenovirus in infantile gastro-enteritis has been under investigation in this laboratory by testing faecal samples from children under hospital or outpatient care in different centres. Samples received from January to September 1981 were tested for the presence of rotavirus and adenovirus antigens by counter-immunoelectrophoresis and by enzyme-linked immunosorbent assay. Some samples were also tested by direct or immuno-electron microscopy, by cultivation in HEp2 and by bacteriological techniques. Of 192 samples tested, 18 (9.4%) and 14 (7.3%) were positive for rotavirus and adenovirus respectively. Of 7 adenovirus-positive samples so far tested in HEp2 cells, only 2 proved to be cultivable.

According to the different populations samples, the proportion of positive results for rotavirus varied from about 8% to 22% and for adenovirus from 7% to 33%. It is not clear whether these differences reflect variations of incidence of infection or lack of uniformity of clinical assessments.

Tests performed in 19 faecal samples from children involved in a school outbreak of dual aetiology revealed only rotavirus in 37% of samples, only Shigella sonnei in 32% and both agents in 21%. Paired sera from 18 patients involved in the same outbreak showed seroconversion for rotavirus in 4 cases and for S. sonnei in 7 cases.

Rotaviruses were detected more frequently by enzyme-linked immunosorbent assay and by immuno-electron microscopy than by direct electron microscopy, counter-immunoelectrophoresis or complement fixation.