

ABSTRACT

Infantile diarrhoea is a major health problem in Jamaica and bacterial studies have failed to incriminate an infectious agent in over 80 per cent of more than 500 cases examined. Elsewhere, Enteroviruses had been implicated in the disease. This study attempted to elucidate their role in the causation of their illness by comparing the incidence of virus isolation in hospitalised infants suffering from diarrhoea with that in babies (controls) unaffected at the time by such symptoms. The effect of socio-economic, nutritional and seasonal influences were also taken into account.

Forty-three diarrhoeal and 19 control infants aged two months to three years and from Children's Hospital were sampled between January and July, 1969. From these 62 strains were isolated (44 diarrhoeal and 18 control); 5 in monkey kidney, 4 in human amnion, 14 in HEp2 and 39 in newborn mice. All of the HEp2 strains were apparently Adenoviruses, and most of the mouse isolates (at least 87.5 per cent) were Coxsackie A viruses. Isolates in human amnion and monkey kidney were not identified but were presumed to be Enteroviruses.

Differences in the total isolation rate for diarrhoeal babies (50.0 per cent) were insignificant when compared with matched control babies (52.4 per cent). Within the diarrhoeal group, the incidence of Coxsackie A isolates between January and February (a dry period) was significantly higher than that between April and June. This coincided with the prevalence of the disease.

Adenoviruses were isolated with considerable frequency from the control group and apparently played no part in the disease.

Efforts were also made to induce diarrhoeal disease in suckling and adult mice, and adult guinea pigs. These, although unsuccessful, indicated that another agent might also be involved.