

ACQUISITION OF ANTIBODIES TO NORWALK AGENT IN SOUTHEAST ASIA

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OBJECTIVE : To determine the age related acquisition of antibodies to Norwalk agent in different populations in Southeast Asia.

BACKGROUND : Norwalk agent, a parvovirus, was implicated in an epidemic of diarrhea in Ohio in 1971 (1). Dr. Blacklow has recently developed a sensitive and specific RIA for the detection of antibodies to Norwalk agent (2). The prevalence of antibodies to this agent in adults in the United States is high (60%) and antibodies are acquired by persons between 15-30 years of age (2). Little is known of the epidemiology of Norwalk agent infection. To determine the prevalence and age of acquisition of antibodies to this virus in tropical countries, sera from a variety of populations have and are being examined.

METHODS : Sera collected by PE in 1975 in the United States and in 1975-1977 in Taiwan, and the Philippines, sera collected by JC in the Philippines in 1978 and sera collected by PE from two rural and one urban population in Thailand in 1980 are presently being examined.

RESULTS : The results of testing sera from Taiwan, the Philippines and the United States are given in Table 1. Sera from Ban Tablan in Thailand indicates that antibodies are acquired even earlier in Thailand than the Philippines. Sera has been collected from children in Bangkok and Soongnern to determine if the acquisition of antibodies to Norwalk agent differs between rural and urban areas.

This study is complete.

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Table 1. Comparative Rates of Acquisition of Serum Antibody to Norwalk Virus

| Age Group | TAIWAN | | UNITED STATES | | PHILIPPINES | | P Value ^c |
|-----------|-------------------------------|------------------------------|------------------|-----------------|------------------|-----------------|----------------------|
| | Percent Positive ^a | (Number Tested) ^b | Percent Positive | (Number Tested) | Percent Positive | (Number Tested) | |
| 0-3/12 | 57 | (28) | 3 | (70) | 58 | (26) | Ns ^d |
| 3/12-3 | 5 | (254) | 3 | (81) | 19 | (59) | <0.01 |
| 3-6 | 15 | (66) | 12 | (77) | 39 | (54) | <0.001 |
| 6-12 | 24 | (45) | 27 | (75) | 43 | (83) | <0.05 |
| >12 | Not Tested | | 45 | (217) | 57 | (235) | <0.05 |

a Percent of sera tested positive for Norwalk antibody by RIA

b Total number of sera tested in each group

c U.S. and Philippines populations were compared by chi-square test (there were no significant differences between U.S. and Taiwan).

d Not significant

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