

## Vibrio parahaemolyticus in Pediatric Outpatient Diarrhea Patients

Principal Investigators: M. Talmage M'cMinn, CPT, MSC  
Michael W. Benenson, CPT, MC  
Richard A. Grossman, LTC, MC

Associate Investigator: Chiraphun Duangmani, M.D.

**OBJECTIVE:** To determine the frequency of isolation of V. parahaemolyticus from diarrhea patients seen in a pediatric outpatient department.

**DESCRIPTION:** A large proportion of Bangkok pediatric outpatients present with diarrhea as the major or exclusive symptom. The large majority of these children are treated symptomatically; stool cultures to determine the etiologic agent are usually not attempted. In an attempt to determine whether V. parahaemolyticus might be etiologically related to at least some of these diarrhea episodes all pediatric patients with diarrhea as the major symptom seen at the Bangkok Children's Hospital outpatient clinic between 27 January and 15 March 1971 were included in the survey. The survey was ended when 100 patients were studied. Age (within 8 months) and sex-matched controls were selected for each diarrhea patient. Control diagnoses were usually upper respiratory infections; patients with GI complaints were not selected. A group of 14 pediatric hepatitis patients seen during this time, who were being investigated as part of a study of Hepatitis Associated Antigen (HAA), were also included in this survey. All patients were interviewed, using a standardized questionnaire form, and rectal swabs were obtained which were cultured for V. parahaemolyticus.

**PROGRESS:** Table 1 presents the distributions by age and sex of the diarrhea patients and controls. Ninety percent of the patients were under 6 years of age and V. parahaemolyticus was not isolated from any of these 180 children. One isolate was obtained from an 11 year old male patient with diarrhea and a 7 year old male control. Both isolates were untypeable. In addition, one isolate (type K-30), in an 8 year old female, was obtained from the 14 hepatitis cases followed.

Diarrhea patients and controls both gave a similar history of fish ingestion: 3/4 ate fish at least once a month; 1/2 ate fresh fish; 1/3 ate salt water fish; and less than 5% ever ate shellfish. No child gave a history of eating uncooked fish. In addition, fish sauce with peppers is a universal flavoring agent at all Thai meals, but the sauce is derived from cooked fish. Unlike the situation in various parts of Thailand, in Bangkok the use of various shellfish (mostly shrimp) pastes, which may be made from uncooked or partially cooked ingredients, is not common. The results of this survey indicate that there is no evidence that V. parahaemolyticus is associated with clinical diarrhea in young children, at least in the dry months January, February and March.

Table 1.  
Age and Sex Distribution of Diarrhea Patients and Controls and V. parahaemolyticus Isolates

Age	Diarrhea Patients				Controls			
	Male	Female	Total	<u>V. para.</u>	Male	Female	Total	<u>V. para.</u>
1	29	11	40	0	28	11	39	0
2	15	11	26	0	15	11	26	0
3	4	11	15	0	5	12	17	0
4-5	7	2	9	0	7	1	8	0
6-12	7	3	10	1*	7	3	10	1*
TOTAL	62	38	100	1	62	38	100	1

\* Untypeable strains.