

Case Reports of *Vibrio parahemolyticus* Diarrhea among U.S.
Personnel at the SEATO Medical Research Laboratory

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OBJECTIVE: To describe *Vibrio parahemolyticus* diarrhea occurring in U.S. personnel.

BACKGROUND: The bacteriology laboratory at SMRL provides a referral service to the U.S. Army Hospital Bangkok (USAH) for diagnostic bacteriology. The laboratory also processes sporadic requests from professional members of the laboratory itself. Selection factors in the submission of any one specimen are considerable and for that reason the total numbers of various categories of work done are only broad estimates. In the calendar year January 1972 to December 1972, for instance, there were 54 stool specimens submitted by U.S. personnel for culture and sensitivity examination. These 54 persons were concerned enough about their illness to first see a physician and secondly to provide the requested specimen (if such a specimen was requested). These 54 persons were probably only a few of the vast total of people affected with enteric illness.

METHODS: Bacteriology laboratory records were reviewed for the years January—December 1972 and 1973 and all stool specimens submitted by U.S. personnel were identified and tabulated. Those persons from whom *Vibrio parahemolyticus* was isolated were identified and interviewed regarding their case histories and symptomatology.

PROGRESS: In 1972 fifteen (28%) of 54 specimens submitted by U.S. personnel had a pathogenic enteric organism grown on culture. Two (3.7%) had *Salmonella* sp., 2 (3.7%) had *Vibrio parahemolyticus* and 11 (20%) had *Shigella* sp.

During the calendar year 1973 there were 68 specimens submitted, 17 (25%) of which were positive for pathogenic organisms. 11 (16%) had *Salmonella* sp., 3 (4%) *Vibrio parahemolyticus*, and 3 (4%) *Shigella* sp. There were also 6 (9%) pathogenic *E. coli* and 6 (9%) non-agglutinable vibrios isolated.

There were four individuals in the 12 month period Oct 72—Oct 73 with culture—proven *Vibrio parahemolyticus* diarrhea. All four were adult males and all four were assigned to SMRL. Two patients remembered specifically eating a seafood meal within 24 hours of the onset of symptoms. In both of these cases the seafood was obtained and eaten at restaurants at resort areas on the Gulf of Thailand (not in Bangkok City itself).

Case 1: A 24 y.o. male. Experienced cramping, lower abdominal pain and watery, light—brown stools 20 hours after eating beef curry, and noodles with pork at a local noodle shop. The patient continued to have watery stools and intermittent, cramping, abdominal pain for the next 4 days. A stool culture obtained on the 4th day of illness grew *V. parahemolyticus*. A repeat culture 1 week after symptoms had abated was negative. During the first two days of illness the patient had 8 watery bowel movements.

Case 2: A 34 y.o. male. Experienced dizziness and nausea with vomiting of green fluid. Later the same evening the patient became dizzy and weak, and during a four hour interval passed four watery,

yellow stools. These were accompanied by severe cramping abdominal pain. The patient continued to have cramping pain and watery diarrhea 6-8 times a day for the next four days. The patient was given tetracycline and 2 days later had formed stools and was essentially recovered. The patient frequents the same noodle shop as case 1, though no specific food history was obtained. The patient's wife had a similar clinical history for much shorter duration but she was not cultured.

Case 3: A 25 y.o. male developed cramping abdominal pain and watery diarrhea 15 hours after eating a seafood meal consisting of steamed crab and breaded shrimp. The patient had 3 more bowel movements within the next five hours. The cramping abdominal pain was relieved by Lomotil although the diarrhea continued for at least 2 more days. Both other individuals who had eaten the crab were also ill but were not available for culture.

Case 4: A 36 y.o. male experienced cramping abdominal pain 24 hours after eating a seafood meal which included raw clams. (One of which was not eaten because it was obviously spoiled). During the first evening of illness the patient experienced approximately 9 bowel movements of brown, watery stool accompanied by cramping abdominal pain. The diarrhea improved over the next 2 days although the cramping abdominal pain persisted for 3 to 4 more days. After one week the patient was essentially well with formed stool and absence of pain.

All four patients present a similar clinical picture: acute onset of cramping abdominal pain with watery diarrhea. One patient had nausea and vomiting; the other three patients denied this symptom. None had bloody diarrhea, and none complained of fever or chills.

SUMMARY: Five (4%) of 122 U.S. personnel submitting a stool specimen for culture and sensitivity had diarrhea due to *V. parahemolyticus*. This is very similar to the rate described in the Republic of Vietnam among U.S. servicemen. Reports of four cases of *V. parahemolyticus* diarrhea among U.S. personnel stationed at the laboratory are presented.