A Prospective Study to Determine the Prevalence of Acute Diarrhea Caused by *Campylobacter* species in Adults Attended at King Chulalongkorn Memorial Hospital, Thailand

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**ABSTRACT**

**Background:** There have been no prospective studies to determine the prevalence of acute diarrhea caused by *Campylobacter* species in adult patients in Thailand. 

**Objectives:** To determine the isolation rate of *Campylobacter* species from the stool of adult patients presented with acute diarrhea attended at King Chulalongkorn Memorial Hospital, Bangkok, Thailand.

**Patients and Methods:** This prospective study was carried out from October 2006 to February 2009. Apart from routine cultures for pathogenic bacteria, the stool specimens were also examined for *Campylobacter* species by direct Gram stain with a 1:20 dilution of carbol-fuchsin used as a counterstain and cultured using two methods including a direct plating method onto a charcoal-based selective medium as well as a membrane filtration method onto a *Brucella* blood agar, and incubated for 72 hours at 42°C and 37°C in a microaerophilic atmosphere. Demography, clinical features, and microbiologic results were also collected and analyzed.

**Results:** A total of 100 patients were included in the study. There were 50 males and 50 females with the mean age of 50 years (range: 16-98 years). The average duration of diarrhea was 42 hours (range: 1-168 hours). Inflammatory and non-inflammatory diarrhea were noted in 63 and 37 patients, respectively. The causative pathogens were identified in 32 (32%) patients. *Salmonella* species was the most common causative pathogen (16 patients, 50%), followed by *Vibrio* species (7, 21.9%), *Clostridium difficile* (3, 9.4%), *Aeromonas* species (2, 6.3%), *Plesiomonas* species (2, 6.3%), and *Entamoeba histolytica* (1, 3.1%). *Campylobacter jejuni* was isolated from only one male patient with non-Hodgkin’s lymphoma who presented with acute watery diarrhea. The diagnosis was confirmed by direct Gram stain and the two methods of isolation. He gradually improved after three days of treatment with ceftriaxone.

**Conclusions:** To the best of our knowledge, this is the first prospective study to determine the prevalence of acute diarrhea caused by *Campylobacter* species in adults in Thailand. Due to the very low isolation rate, we do not recommend the routine culture for *Campylobacter* species in adult patients presented with acute diarrhea in our institute. *(J Infect Dis Antimicrob Agents 2009;26:35-42.)*

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