

TWO CONSECUTIVE OUTBREAKS OF FOOD-BORNE CHOLERA ASSOCIATED WITH CONSUMPTION OF CHICKEN RICE IN NORTHWESTERN THAILAND

Witaya Swaddiwudhipong¹, Sriwan Hannarong², Pongpot Peanumlom¹,
Chakrarat Pittayawonganon³ and Wathee Sitthi³

¹Department of Community and Social Medicine, Mae Sot General Hospital, Tak;

²Mae Sot District Health Office, Tak; ³Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand

Abstract. Hainanese chicken rice (cooked rice mixed with chicken fat and served with sliced chicken and cucumber) is a well-known Chinese dish in Southeast Asian countries. We report two consecutive outbreaks of cholera associated with consumption of chicken rice among attendants of two meetings in northwestern Thailand in April 2010. Active case finding was carried out among persons who attended the meetings and in the community. Environmental investigation was conducted at the implicated food shop and in the affected areas. The first outbreak involved 17 cholera cases (35.4%) among 48 attendants and 16 cases in the community. The onset of symptoms was between April 19 and 23, 2010. People who ate the chicken rice had a higher attack rate of infection than those who did not. All 12 food handlers at the implicated food shop were screened for cholera infection by rectal swab culture; 3 were culture-positive. Although the food shop was closed temporarily following the outbreak, some chicken rice was produced and served at the second meeting and caused 11 more cases (23.4%) among 47 meeting attendants. All cholera isolates obtained from patients and food handlers were *V. cholerae* O1, biotype El Tor, serotype Ogawa, and had similar antibiograms and genetic patterns by pulsed-field gel electrophoresis. The chicken rice which was possibly contaminated by an infected food handler served as the vehicle of transmission. A repeat cholera outbreak caused by the same vehicle can occur when control measures are not adequately followed.

Keywords: cholera outbreak, chicken rice, food-borne, food handler, Thailand

Correspondence: Witaya Swaddiwudhipong,
Department of Community and Social Medicine,
Mae Sot General Hospital, Tak 63110,
Thailand.

Tel: 66 (0) 55 531229; Fax: 66 (0) 55 533046

E-mail: swaddi@hotmail.com