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SUPRANEE TONGPRADIT: HEPATITIS A VIRUS ANTIBODY
PREVALENCE AND ENVIRONMENTAL SANITATION CONDITIONS AMONG
AKHA-HILL TRIBE YOUTH, CHIANGRAI PROVINCE, THAILAND. THESIS
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Among the hill-tribe people in the rural northern part of Thailand, reliable data of hepatitis A virus (HAV) infection, one of the food and water-borne diseases, are not known. A cross-sectional analytic study was conducted for determining HAV antibody prevalence and assessing the environmental sanitation conditions among Akha-hill tribe youth at Ban-Doi-Chang, Amphoe Mae-Sau, Chiangrai Province, Thailand, between July and December 1999. Serum specimens, obtained from 190 Akha-hill tribe youth, were tested for antibody to HAV (anti-HAV) by an ELISA. The environmental sanitation conditions and the hygienic behaviors of the studied households were obtained by observation and interview. The household's drinking water was screened for coliform contamination by using SI-2 media. The results showed very high rate of HAV antibody prevalence among the Akha-hill tribe youth (87.89%). Most studied households had unsanitary environmental sanitation conditions and poor personal hygiene and child health care behaviors. The coliform contamination in studied households' drinking water was 73.53% (125/170). From the anti-HAV results, the studied Akha-hill tribe youth were divided into 2 groups: individuals with and without anti-HAV. The studied variables of 2 groups were analyzed to identify some factors associated with anti-HAV positivity. It was found that monthly income and numbers of household members were associated with anti-HAV positivity ($p=0.040$ and 0.007 , respectively). Personal hygiene factors, including not washing hand with soap after using the toilet ($p=0.013$), and environmental sanitation conditions, including use of latrine ($p=0.008$), latrine emptying method ($p=0.003$), household refuse management ($p<0.001$), and control of insects and rodents ($p<0.001$), were also associated with anti-HAV positivity. Based on these findings, improving the socio-economic situation, personal hygiene, and environmental sanitation management should be done to reduce hepatitis A infection in Akha-hill tribe people.