



HEAT INJURY SERVEILLANCE AMONG CONSCRIPTS IN MILITARY SETTINGS: BANGKOK AREA

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Abstract

Background: From the report of Department of Preventive Medicine and Health Promotion of RTA Medical Department indicated that incidence of heat stroke among Thai conscripts still occurs due to global warming and the conscripts physical conditions since they are not get used to the heat during hard core training out-door. Thus, the objective of this study is to survey and find proactive measures to prevent the conscripts in Bangkok area from heat injury.

Methods: Surveillance was done among 279 conscripts on a shift of 1/54 in the 1st Battalion of the 1st Infantry Regiment and the 6th Battalion of Anti-aircraft Regiment by recording the demographic data, risk behaviors and checking body temperature after daily training at 1900 – 2000 during the first 14 days of training. Those who had a body temperature more than 37.8^oc, they were allowed to rest and provided the primary care according to symptom and adequate drinking water.

Results: The demographic data showed that the average age of conscripts was 21.1 ± 1.1 years, most of them were educated under secondary school grade, were out-door workers and healthy. Those who had a risk to heat injury were obesity ($BMI \geq 25$, 10 %) and risks of health behavior were smoking (73.8%), alcohol drinking (83.4%) and over alcohol drinking prior enter the Army (37.2%). Surveillance results of body temperature monitor during the first 14 days of training revealed that those who showed the body temperature $\geq 37.8^{\circ}c$ were 6 cases (6.8%) and 49 cases (25.6%) from the 6th Battalion of Antiaircraft Regiment and the 1st Battalion of the 1st Infantry Regiment respectively. After allowing them to quit their training the following day, provided specific primary care to their symptoms and adequate drinking water, only one day after that they could get back for training as usual. There was no any incidence of heat injury in this study.

Conclusions and Suggestions: From this study, it was found that no incidence of heat injury occurred after quitting training, provided primary care and adequate drinking water to those who had the body temperature $\geq 37.8^{\circ}c$. Whereas these proactive measures could prevent heat injury among conscripts, these preventable measures should be strictly implemented as a regulation for training of the conscripts to decrease an incidence of heat injury. However, there should be further studies towards other factors such as characteristic of drinking water, volume of drinking water, frequency of water drinking and the mild or hard core training etc, in which these factors should be brought to analyze for certain result in heat injury prevention.