

Urgent Notification Of High Temperature Induced Mortality of Patients with Diabetes and Hypertension in **Hodeidah Governorate, Yemen**

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Abstract الملخص

Dear Editor:

Many researches and studies have shown a relationship between high and cold air temperature and an increase in mortality, especially for patients with cardiovascular disease.[5,6] Recently, associations between ambient temperature and morbidity have also been reported,[7,8] even though these associations have not always been similar in magnitude to mortality,[8] and null findings have also been reported.[9] Also, while the association between temperature and cardiovascular mortality has been reported to be U-shaped in many studies,[10] the association with cardiovascular hospitalization was reported to be linear in the US [7]. Increased blood pressure (BP) is a risk factor for cardiovascular mortality [14,15] and for coronary heart disease and stroke morbidity [16,17]. Therefore changes in BP might also play a part in the development of cardiovascular events that are associated with changes in temperature. The mechanisms behind temperature-related cardiovascular mortality and morbidity are not fully established. As elevated BP is a known risk factor for cardiovascular disease and stroke events, BP can also be part of the mechanism leading to temperature-related deaths. Epidemiological studies have shown that cardiovascular diseases rank first among the causes of death in China and have become a major disease within the Chinese population [18].

The effects of type 1 and type 2 diabetes on the body's physiological response to thermal stress is a relatively new topic in research. Diabetes tends to place individuals at greater risk for heat-related illness during heat waves and physical activity due to an impaired capacity to dissipate heat. Specifically, individuals with diabetes have been reported to have lower skin blood flow and sweating responses during heat exposure and this can have important consequences on cardiovascular regulation and glycemic control. Those who are particularly vulnerable include individuals with poor glycemic control and who are affected by diabetes-related complications [19].

As a result of the war and the siege on Yemen, the deterioration of living and health conditions, the interruption of electricity, the suspension of salaries for six years, and the arrival of about 80% of the population of Al-Hodeidah Governorate to a level below the poverty line. We have monitored as a result of the high temperature, which reached 48 degrees Celsius in the city of Hodeidah, 28 deaths of people with diabetes and arterial hypertension were monitored for the period from 5-6-2022 to 25-6-2022. This catastrophe occurred due to the government power outage as a result of the war and the siege on Yemen and the inability of people to buy expensive commercial electricity.

This is considered a humanitarian disaster that requires a serious stand by the government, international organizations and the international community to save Hodeidah residents from extreme heat and poverty by providing electricity and humanitarian aid to contribute to improving the health and living situation in the governorate and supporting hospitals with fuel by the World Health Organization.

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