

Are we prepared for next heat wave?

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Madam, the recent heat wave in Karachi, the biggest metropolitan city of Pakistan, claimed more than one thousand lives in no more than a few days.¹ The temperature went as high as 113°F or 45°C with intense humidity making life miserable in Karachi. Uninterrupted load shedding, lack of water supply and the fasting month of Ramazan intensified the havoc to an unbearable level for the citizens. Most of the victims were the elderly, labourers and the poor. The majority of deaths were presumably caused by heat stroke and dehydration.

Heat stroke is a life-threatening condition clinically diagnosed as sudden elevation of body temperature to 104°F or 40°C.² Classic heat stroke occurs in immunocompromised adults while exertional heat stroke usually occurs in young and healthy individuals doing strenuous exercise. Risk factors include old age, strenuous exercise, poor physical fitness, dehydration and obesity.² The pathophysiology of heat stroke is poorly understood. Lack of thermoregulation by the heat centres of brain is a proposed mechanism. Cytokines and endotoxins might have some role in the pathogenesis especially interleukin-1B.³

The treatment of heat stroke usually remains symptomatic. Airway, breathing and circulation should be secured. Lowering the body temperature using cooling techniques is very critical. Appropriate cold water immersion is a well-understood mechanism for cooling.⁴

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More than a thousand lives in a few days raises a big question on our strategies for natural incidents like heat waves. Appropriate measures could have saved precious human lives. Public awareness should be given utmost importance. Wearing light clothes, drinking plenty of fluids, staying indoors and avoiding unnecessary exertion can prevent heat strokes. Heat stroke units with facilities of basic life support should be prepared in advance all hospitals anticipating any heat wave forecast. Cold water dispensers should be kept in public places. All healthcare personnel should be given appropriate training to tackle heat stroke incidents. Hospitals should be equipped with standby generators in case of uninformed load shedding. Ice and cold water reservoirs should be maintained in all hospitals during the summer.

The seriousness of natural disasters like heat waves should be recognised to avoid loss of precious lives. Such natural incidents cannot be stopped, but we can at least prepare ourselves minimize the loss as much as possible.

References

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