TITLE :

"From Unconsciousness to Recovery: A Case of Heat Stroke"

INTRODUCTION

Heat-related illness, a medical emergency, can lead to up to 70% mortality in heat stroke cases but near 100% survival with prompt treatment. In Malaysia, the incidence of heat stroke is increasing due to rising temperatures and high humidity, with significant cases reported during heatwaves and extreme weather events.

(49 words)

DESCRIPTION AND OUTCOME

A 29-year-old male with no known comorbidities was found unconscious after marching for over 12 hours. In the ED, he was hypotensive, tachycardic, and had a core temperature of 40°C with a GCS of E1V2M1. Diagnosed with heat stroke, he received rapid external cooling and IV fluids. Intubation was required due to airway protection and restlessness subsequently. Blood tests showed acute kidney injury, transaminitis, and rhabdomyolysis. Admitted to the ICU for close monitoring and continued IV fluids, he was later extubated. After a 5-day hospital stay, his clinical condition and blood parameters improved, and he was discharged.

(97 words)

DISCUSSION

Heat stroke is defined by a core temperature over 40.5°C and central nervous system (CNS) dysfunction. It occurs when thermoregulatory responses fail due to extreme temperatures, physical exertion, or physiological limitations, frequently affecting children, the elderly, and chronically ill individuals. Factors like chronic dehydration, medications, and heat shock protein deficiencies increase susceptibility. The workup focuses on detecting organ damage and excluding other causes of hyperthermia and CNS dysfunction. Treatment involves fluid resuscitation and cooling techniques to reduce temperature to 38°C, including removing clothing, spraying with cool water, applying ice packs, and using mist fans or evaporative methods. Seizures and shivering are managed with benzodiazepines and paralytics if intubated. Monitoring complications like pulmonary edema and hypothermia is critical, with potential risks including cerebral edema, coagulopathy, liver and renal dysfunction, rhabdomyolysis, and electrolyte imbalances. Invasive cooling methods and cold water IV infusion are not recommended due to complication risks. Public health measures are essential, such as monitoring environmental conditions, promoting hydration, educating the public and high-risk groups, facilitating acclimatization, implementing paced work schedules, and educating caregivers about heat-related illnesses.

(177 words)

CONCLUSION

Heat stroke, a severe heat-related illness, diagnosed clinically, requires prompt treatment with rapid cooling and fluid resuscitation to prevent complications.

(20 words)

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