

BOLT FROM THE BLUE, SURVIVING A SHARED LIGHTNING STRIKE

NO 301

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INTRODUCTION

Malaysia has one of the highest lightning strike densities globally with 132 lightning-related deaths reported between 2008 to 2019. While most victims are middle-aged construction workers in central regions [1], this report involves a young boy and his mother in Perlis state.

CASE REPORT

An 8-year-old boy walking in an open field with his mother was struck by lightning, as witnessed by the father. Both lost consciousness at the scene. Upon arrival, child was alert but restless while mother was alert but amnestic; they were triage to red and yellow zone respectively. Child had a patent airway and was immobilised. Lung auscultation was clear bilaterally. His SpO₂ was 96% on room air, respiratory rate 40, blood pressure 141/95 mmHg, and heart rate 120 bpm. No fractures were found, but he had circumferential second-degree burns on the neck and extensive second-degree burns on the chest, abdomen, and bilateral thighs (approximately 25% total body surface area). Capillary refill time was under 2 seconds, with fair pulse volume. Other neurological exam was unremarkable. ECG showed sinus tachycardia. Blood gas analysis revealed acute respiratory acidosis. Due to respiratory failure and circumferential neck burn, rapid sequence intubation was performed. Fluid resuscitation was administered according to the Parkland formula. After wound cleaning, he was transferred to the paediatric burn unit at a tertiary centre. He was admitted for two weeks and discharged in good condition. The mother was diagnosed with a cerebral concussion and discharged from the emergency department after observation.

KEYWORDS

lightning injury, paediatric burn, parkland formula

DISCUSSION

Public awareness of lightning injuries in Malaysia is low. Nearly 44% of individuals doubt that cardiopulmonary resuscitation (CPR) can save lives [2]. Most fatalities occur in open fields or under shelters such as trees can commonly present as cardiorespiratory arrest, with head and neck being the most frequent injury sites [1, 3]. Child likely experienced a transient cardiopulmonary arrest at the scene. It was fortunate that he was promptly transported to the hospital. However, bystander CPR would become necessary should the cardiac event recur or persist.

CONCLUSION

Lightning injuries are preventable. This case, a near miss, highlights the urgent need for public education on lightning safety and basic life support.

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Figure 1: post wound deroofing

