



Summer and High Voltage Electric Burn Injuries: A Preventable Hazard in Developing Countries

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Letter to the Editor

Today, burn surgeons around the globe are facing the burns as a major question in terms of its treatment, long term calamitous effects and complications. Electric burn injuries are extremely demanding to manage especially in developing countries like Pakistan. Electrical injuries occur when high-energy current moves through the body because of contact with an electrical source. Injuries occur because of either the flow of current through the human body, arc flash, or clothing that attracts fire. In our country, electric burn injuries impose a constant challenging problem due to improper medical facilities, public's reckless attitude towards managing electricity, insufficient resources and illiteracy, low-quality electrical wiring, and malpractices such as untrained and inexperienced persons do jobs without proper training and equipment, administration and knowledge regarding safety and appropriate handling of electricity. These injuries increase in numbers in summer season and especially the Monsoon (Rainy) season. Living in a struggling and developing country, we can't overlook the relentless problem of load shedding in the summer season which leads to an increased incidence of electric burn injuries (1) probably due to the increased use of household electrical appliances and generators.

Electric burn is associated with increased morbidity and mortality especially when it is a High Voltage Electric Burn (HVEB) Injury. Of all burns treated in a medical setting, 4% to 5% are electrical (2). According to a study conducted at a Burn Centre in Portugal (3), the authors retrospectively analyzed data over a 10 years period. They concluded that out of 1,695 burn patients, 99 subjects suffered electric burns. When compared to the data from a developing country like ours, incidence of burns is much higher. More than 12,000 electric burn patients over the span of 14 years were reported to Burn Care Centre PIMS, Islamabad as presented in 26th Annual International Conference of Pakistan Association of Plastic Surgeons (PAPSCON 2022 in Lahore, Pakistan). During the months of May and June 2022 (Monsoon season), at Burn Care Centre, Islamabad, 14 cases have been reported with High Voltage Electric Burns. Out of 14 patients, unfortunately 3 couldn't survive, 5 patients underwent amputations (2 above elbow, 2 below knee, 1 above knee), 2 patients suffered more than 1 amputation (Arm/leg). Flaps were done on 2 patients and rests are currently under treatment. Pediatric age group patients were 6, which is a major social dilemma leaving them dependent for the rest of their lives and their parents at the worst of psychological trauma. Possible factors for pediatric age group involved are Parents negligence/ignorance, poor socioeconomic status and lack of awareness regarding safe use of electricity.

Electric burns are avoidable public health issues. There should be preventive strategies to decrease the incidence of electrical injuries. Special attention should be given in summers and monsoon season. These may involve awareness programs about burn hazards, safety measures should be ensured at occupational levels, regular maintenance of household electric appliances.

Keywords: Burns; Islamabad; BCC; Pakistan.

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