

ABSTRACT

**THE PATTERN OF THE INCIDENCE OF ELECTRIC BURNS IN PLASTIC
SURGERY DEPARTMENT DR. SOETOMO GENERAL HOSPITAL SURABAYA
PERIOD JANUARY 1ST 2014 – DECEMBER 31ST 2017**

Background: *Although electrical burns have a rather low incidence, they are considered one of the most devastating injuries. Electrical injuries are unique with very high rates of short and long term morbidity, and overall outcome. A descriptive retrospective study assessing several parameters related to electrical burn, aims to provide useful data for further research.*

Method: *This is a descriptive retrospective research evaluating 50 patients treated for electrical burn from 1 January 2014 to 31 December 2017 using medical records of the patients. The parameters assessed are annual incident, age, gender, domicile, occupation, cause of injury, location of burns, extent of burns, degree of burns, concomitant injury, and treatment modalities managed at SMF Bedah Plastik RSUD Dr. Soetomo, Surabaya.*

Results: *Out of 50 patients, 18 (36%) patients came from 2014, 6 (12%) patients from 2015, 10 (20%) patients from 2016, and 16 (32%) patients from 2017. Most electrical injury occurred in May with a total of 12 (24%) patients. There were 49 (98%) male patients and 1 (2%) female patients. The patients ranged in age from 8 years – to 60 years old, with 17 (34%) patients in the 26-year till 35 year age group. Regarding domicile of patients, 56% patients were from outside Surabaya, 30% from Surabaya. 76% patients were private employees. Approximately 82% electrical injury were caused by work accident. The*

extremity region is the location most frequently affected by electric burns, with average burn area in 50 patients was 5.7%. All patients experienced IIB degree electric burns. The increase in non-specific serum transaminase was the most common comorbid injury. Electrical injury is associated with higher use of debridement, wound dressing, fasciotomy, split thickness skin-graft, and amputation.

Conclusion: *The finding of this study, supported with other studies reported, provides useful data in order to manage programs aimed at reducing the incidence of electrical injury significantly.*

Keywords: *electric burns, electrical injuries, electric current injuries, job-related injuries, burns*