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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2013, 30(5):627

The incidence of electrical injuries in Messinia over the last 10 years

Electrical injuries are a form of trauma with unique pathophysiology and high morbidity and mortality.^{1,2} They encompass three types; lightning injury, high-voltage injury, and low-voltage injury. The age of the patients who are electrocuted shows two peaks, the first occurring in children aged <6 years (mainly accidents at home), and the second in young adults (mainly work-related).² Clinical symptoms can range from transient unpleasant sensations without obvious injury to massive tissue destruction. Up to 40% of serious electrical injuries are fatal^{3,4} resulting in an estimated 1,000 deaths/year in the US.⁵ Provided that relevant data are lacking in Greece, our aim was to record all incidents of electrical injuries for which patients were admitted to the Cardiology Department of the Messinia General Hospital over a 10-year period.

We retrospectively analyzed the data on 27,456 patients admitted to the Cardiology Department of the Messinia General Hospital, a 300-bed public Hospital serving a population of over 170,000 (Census of 2011) in the Messinia Region of Southwestern Greece, from January 2003 to December 2012 for cases of electrical accidents. The place of residence of the patients was classified as urban ($\geq 10,000$ people) and rural ($< 10,000$), based on data from the National Statistical Authority of Greece. We collected data on the demographic characteristics of the patients and mortality due to electrical injuries.

Electrical injuries were responsible for 0.23% (n=64) of acute admissions. The mean age of the patients was 33.4 years (range: 2–86 years), of which 42 (65.6%) were males and 22 (34.4%) females. The number of patients from urban areas was 35 (61.4%) and from rural areas 22 (38.6%) and the data were missing for 9 patients. Concerning the insurance status of the patients, 29 (45.3%) were indigent and/or uninsured and 35 (54.7%) had insurance. The mean duration of hospitalization was 1.25 days.

Our findings suggest that electrical injuries are prevalent in the population of Messinia, especially among indigent and uninsured younger males. There is a definite need for

stronger preventive measures to be instituted, although it is doubtful whether they could be implemented at present due to the prolonged financial crisis.

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ΠΕΡΙΛΗΨΗ

Επίπτωση ηλεκτρικών τραυματισμών στη Μεσσηνία κατά τη διάρκεια των τελευταίων 10 ετών

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