

Short Communication

INCIDENCE OF INDUSTRIAL AND DOMESTIC CASES OF DEATHS DUE TO ELECTROCUTION

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ABSTRACT

Deaths from electrocution may be mostly accidental and very rarely suicidal or homicidal electrical energy involving low tension or low voltage currents commonly employed in the home and industry cause most accidents from electric shock. The present study reveals that electrocution deaths be thoroughly documented and investigated for safety, prevention and compensatory reasons. In the present study 43 cases were taken out of which 29 were domestic and 11 were industrial and 3 were unknown.

Keywords: *Electrocution, Domestic, Industrial*

INTRODUCTION

Thomas (1989) mentioned in detail about the injury that occurs due to high tension electrical current. Prevention is also discussed and explained Wiecking David (1983) reveals the accidental deaths due to electrocution. In the study the legal procedure is also mentioned in detail. Ajay (2011) discusses the different cases of deaths that occur due to electrocution. The cause, prevention and patho-physiology are also mentioned. Camps and Purchase (1998) reveals different cases of electrocution. A detail case History of persons and the cause of death are explained. Different Examinations are also mentioned. Spitz and Russel (1994) shows the guidelines for the pathology to crime investigation and deaths due to electrocution may be one of reason for that.

MATERIALS AND METHODS

The records maintained for each case in the Department of Forensic Medicine include a copy of (i) Inquest Report (ii) Post-mortem examination report (iii) Extract from hospital in-patient ticket (if the deceased was treated in a hospital) (iv) Histopathological examination report (in a few cases). In addition the autopsy Pathologists' notes on the history obtained by him and the notes of criminal proceedings if any were also maintained. All these documents perused in relation to the cases of the death due to electrocution. The cause of the death as given by the autopsy Pathologist was taken as the criterion to consider that an autopsied case as a "electrocution fatality. The possibility of electrocution is always considered whenever the pathologist is investigating any sudden or suspicious death, taking into consideration the circumstances leading to his death. Many a time death due to electrocution may be totally unsuspected at the scene of death. Hence, an attempt has been made to ascertain the manner of death, taking into consideration the history as given in the Inquest Report, the age of the deceased, the nature of his occupation, circumstances related to his death and other available information, by a thorough investigation of electrocution death not only by autopsy but also a visit to the scene of occurrence along with an electrical expert.

RESULTS AND DISCUSSION

Table 1: Showing the incidence of Industrial and Domestic cases of deaths due to electrocution

Total No. of cases	Domestic	%	Industrial	%	Unknown	%
43	29	67%	11	26%	3	7%

Table 1: shows the percentage incidence of Industrial and Domestic cases of deaths due to electrocution. It is observed from the data that in case of domestic cases the percentage is high in comparison with that of industrial. Total number of cases are taken was 43.

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In industry the risk is greater than in domestic circumstances because the workers may be on concrete which is rarely quite dry, or on damp ground or flooring, they may be wearing steel-shod boots or worn boots. They are often near steel work. In the home the person is likely to be dry shod, stood on wood or carpeted floor. Here the greatest risk is in the bathroom and above all in the bath. In the home glancing contact with the electric current may result only in a sensation of tingling or at worst an unpleasant shock and temporary increase in heart and respiration as happened when a finger was put on a live floor socket. If, however, the conductor is grasped there is the likelihood of “hold on” and fatal shock.

Some of the common examples of the electrocution deaths are seen at the repairing work of TV, radio, Iron, washing machine, domestic dryers, electric stoves and rice cookers. The commonest causes are due to defective insulations of the wire improper fitting, insufficient knowledge regarding the electrical fittings and carelessness while handling the electrical appliances. The common electrical accidents are seen in bath rooms and kitchens.

Electricity is ubiquitous in our modern civilization and is the source of much productivity and enjoyment. It is also a very dangerous instrumentality which should be respected by everyone. The occasional fatality due to electrocution must be thoroughly explained. Every one of these deaths is potentially preventable, since each is due to either equipment malfunction or victim error.

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