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A bizarre case of homicidal electrocution - A case report

Luv K. Sharma[1], Geetanjali Sharma[2], Basant L. Sirohiwal[3], Vijay P. Khanagwal[4], Pramod K. Paliwal[5], D.R. Yadav[6]

[1]Lecturer, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India
[2]Lecturer, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India
[3]Associate Professor, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India
[4]Reader, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India
[5]Associate Professor, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India
[6]Professor & Head, Departments of Forensic Medicine & Physiology, Pt. B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak-124001, Haryana, India

Contact: the corresponding author Luv K. Sharma · drluvksharma@yahoo.com

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ABSTRACT

The paper describes an unusual case of homicide by electrocution, whereby two relatives of a person electrocuted him after first incapacitating him with alcohol.

Keywords: Homicidal electrocution, murder

Introduction

Deaths due to electrocution are infrequent. Virtually all such deaths are accidental in nature with suicides much rarer and homicides least common. A very scanty literature with widely interspersed reported cases of homicidal electrocution exists. Still, the brutal manner of killing a human being with the use of one of the most ingenious discoveries of mankind is captivating though horrific too!



Figure 1. Body of the victim as was found by the police (note the metallic rod sticking out from neck and long wire going away from the body)

Case Report

The victim was a businessman belonging to a neighboring state living away from his family in a rented house in the said city. The man committed a grave and fatal mistake by taking into his house two of his poor relations after employing them into his factory. The relations took advantage of his generosity and planned his murder with ulterior motives. The landlord did not see either the man or his relatives for a couple of days so suspecting foul play called the police to break open the locked house. There they discovered the decomposed body of the benefactor lying in the courtyard **(photograph no.1)**. A mass of wires were tied on his wrists which further continued to encircle his neck. These wires placed on his neck were fitted into two metallic rods and a long piece of wire abruptly ended a few feet away from the body. The remaining portion of this long wire was seen to enter the kitchen and was inserted into an electrical socket on the wall **(photograph no.2)**.

Findings on post-mortem examination

The body of the victim showed signs of decomposition of roughly 3-5 days duration. It wore only a *pattedar kaccha* (a striped underwear) and *baniyan* (vest used as an undergarment in India) **(photograph no.3)**. The most striking thing about this body was the presence of a whole circuit of electricity formed by electric wires tied over his wrists with a loose end emanating which was cut at the end. These wires then encircled the neck where they were tied around two metallic rods, thereby transfixing the neck between them.



Figure 2. Other portion of loose wire inserted into socket in kitchen.

This arrangement resembled a cathode- anode axis. Loose ends again cut (insulating material removed from the ends) were sticking out of the rods **(photograph no.4)**. The combined effect of the electric current, tight wires around the neck and the decomposition process had caused damage to the neck structures leading to exposure of cervical vertebrae **(photograph no.5, 6)**. Marked congestion was seen in the neck tissues. The edges of the torn skin of the neck were showing contused ragged margins with thickened, rolled up and undermined edges below the wires. The wires of death were removed and reconstructed to see the elaborate arrangement **(photograph no. 7)**.

All internal organs showed signs of early putrefaction, which was consistent with death occurring 3-5 days earlier.



Figure 3. Another view of the dead body after hands were opened. The 'cathode' arrangement is clearly visible.

Discussion

This was the work of criminals who knew a lot about electricity. At the crime scene a bottle of alcohol was recovered by the police, therefore, the viscera were preserved for chemical analysis, the same being positive for ethyl alcohol (blood concentration 150 mg %). This confirmed the theory that the victim was first incapacitated by alcohol and then killed, as it would have been difficult to simply overpower such a well built man and fry him in such an elaborate manner.



Figure 4. Dead body on the autopsy table. (Note the metallic rod sticking out from neck, long wire going away from the body and hands fastened together by same wire).

Deaths due to electrocution virtually always involve alternating current, it being more commonly used in this country. Another factor could be that humans are about 4-6 times more sensitive to alternating than to direct current[1]. The use of electric current for homicide is not a very common

method and very scarce literature is available in this regard. This type of murder is usually associated with a criminal of very offensive nature or planned revenge murders with a technical knowledge of electricity. The very idea of applying electric current to a human being to kill him is appalling.

Physiological Effects of current on the human body

The major physiological effects of current on the human body with respect to onset current level is depicted below[2]:-



Figure 5. A complete view of the dead body of the victim after being brought to the mortuary.

Onset Current Level (mA)	Effect
1	Threshold of sensation
8	Mild sensation
10	Painful
13	Cannot let go
21	Muscular paralysis
20	Severe shock
38	Breathing labored
42	Breathing upset
70	Extreme breathing difficulties
90	Ventricular fibrillation
100	Death

When an electric shock is fatal, it is called electrocution. A low voltage (110-220 V), 60-Hz AC current traveling through the chest for a fraction of a second may induce ventricular fibrillation at currents as low as 60 mA. With DC, 300-500 mA is required. Fibrillations are usually lethal because all the heart muscle cells move independently. It is believed that human lethality is most common with AC current at 100-250 volts, as lower voltages can fail to overcome the body resistance while

with higher voltages the victim's muscular contractions are severe enough to cause them to recoil. Electric shocks have been used as a method of torture, since they can be controlled with precision and used to cause pain whilst avoiding obvious evidence on the victim's body[3].



Figure 6. Another view of the dead body after hands were opened. The 'cathode' arrangement is clearly visible.

Review of literature on homicidal electrocution

Cases pertaining to homicide by electrocution have been reported earlier by different methods and sites involved like tub bath deaths[4], wrapping of bare wires over wrists[5], attaching current to soap dish of wife[6], other domestic murders of similar type[7], murder of infant by father by wires fixed to crib[8] and two recent murders by a man of his son and wife by tying wires around their limbs and deceiving them that the wires were harmless[9]. The authors of this paper have also encountered two cases of homicidal electrocution in which electric shocks were applied to two elderly men by bared wires at different sites[10].

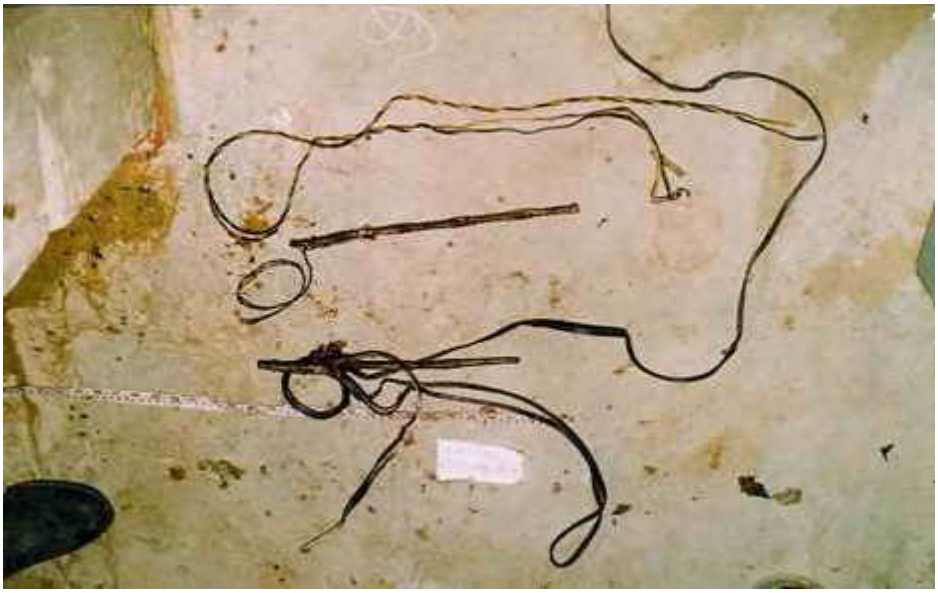


Figure 7. View of 'wires of death'. The whole apparatus is laid for close inspection after removal from dead body.

It is clear from the above that murder by electricity is a very rare phenomenon. Still the use of such ingenious through brutal means for homicide is an alarm bell for sociologists, law enforcement agencies and forensic experts as this clearly reflects the mental makeup of the murderer.

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