

## A case of complex suicide: Self-electrocution

Tarik Ulucay<sup>1</sup>, M. Sunay Yavuz<sup>1</sup>, M. Ziya Kir<sup>1</sup>, Yildiray Zeyfeoglu<sup>1</sup>, Ilknur Kahraman<sup>1</sup>,  
Faruk Aydin<sup>1</sup>, Gonca Tatar<sup>1</sup>, Mustafa Dalgic<sup>2</sup>, Gonca Piskin Kesici<sup>2</sup>

### Abstract

A 57-year-old man was found at his home by his neighbor. The body of the victim was lying on the right side of the door. A copper wire, whose plastic parts were untied, and surrounded the left and right hand palmar and dorsal faces. The wire was connected by an extension to an electric socket in the room. There was blood and toilet paper around the left hand wrist. Suicide note was found on the taboret

**Keyword:** Self Electrocution, Suicide

### Introduction

Complex suicide is defined as using more than one suicide methods together [1, 2]. Using another method concurrently when the first one has the possibility of inefficiency is named as primary complex suicide, using another method to accelerate death when selected method becomes unsuccessful or goes slowly or gives much pain is named as secondary complex suicide [1-3].

Complex suicides account for 1.5-5.6% of all suicides in the forensic autopsy material [1,4]. Most of the suicides that killed themselves by self-incineration in combination with other methods were young to middle aged [4]. In this study, we aimed to discuss a case in which the death occurred as a result of complex suicide.

### Case

A 57-year-old man was found at his home by his neighbor. The body of the victim was lying on the right side of the door. A copper wire, whose plastic parts were untied, and surrounded the left and right hand palmar and dorsal faces. The wire was connected by an extension to an electric socket in the room.

There was blood and toilet paper around the left hand wrist. Suicide note was found on the taboret. Autopsy was performed by the Division of Council of Forensic Medicine in Izmir. In the external examination; it was seen that there were bare plastic parts which were removed from the copper wires which were tied to and surrounded the hand totally on the left hand palmar and dorsal faces (Picture 1). On the skin parts that wires contact, typical electric burns; on the palmar and dorsal faces of right hand, electric burns which surrounded totally; on the inner face of left wrist, six superficial lacerations which varied between 1.5 and 4 cm. in length, involving skin-subcutaneous tissue and soft tissue that were smooth marginated were detected (Picture 2).

Specimens were taken for toxicological and pathologic analysis. In toxicological analysis, there was no toxic substance at blood and urine. In pathological analysis, there was no microscopic pathology on major organs. Lacerations on the left wrist were not fatal and it was understood that death was caused by cardiac arrest linked to the electric current.

**Received:** 18 August 2014, **Revised** 28 August 2014, **Accepted** 28 August 2014, **Available Online** 30 August 2014

<sup>1</sup>Celal Bayar University, Medical Faculty, Department of Forensic Medicine, Manisa, Turkey.

<sup>2</sup>The Ministry of Justice, Council of Forensic Medicine, Izmir, Turkey.

\*Corresponding Author: Tarik Ulucay, tarikulucay@gmail.com

## Discussion

The methods most frequently used in complex suicides are those used in so-called “classic” suicides: hanging, firearms, medication overdose, fall from a height, and drowning [5]. More rarely, cases combining simultaneous shots from two firearms [6-8], two shots followed by hanging [9] a shot followed by self-immolation [10], or self-immolation and fall from a height [4] have been described.

For differential diagnosis, cremation to cover up a homicide should always be taken into consideration when examining fire victims showing additional injuries, such as gunshot wounds or sharp force injuries [11, 4]. In the individual case, the differentiation between suicide and homicide may be difficult, especially if the body is found in the open with additional injuries being (co-) responsible for death and there are no independent witnesses who are not involved in the case [4].

Many questions may remain unanswered if the scene of death is not visited. The scene may reveal features of suicide-privacy, suicide note and so on. Relatives or friends of the decedent at the scene may provide background information such as history of depression and previous suicide attempts, marital, social or financial problems [12]. In such cases, a forensic pathologist should be called to the scene before the body is moved and s/he should carefully note the position of body, the state of

clothing, the position of stains, the condition of the surroundings and the presence or absence of a suicide note [13]. On the other hand, the presence of a weapon beside the body is not necessarily an indicative of a suicide as a murderer may leave a weapon at the scene of the crime to simulate suicide. While investigating a scene of death, a forensic pathologist should ask himself/herself whether the death is a suicide or a homicide [13].

A study of planned complex suicides including the ingestion of toxic substances shows that a wide range of molecules are used [12, 13]. In our case on toxicological evaluation, no toxic substance detected in blood or urine. Electrocution is a relatively rare method of suicide and tends to be used by men more than by women [14]. In the present case, the precise cause of death is electrocution, the superficial nature of the cuts definitely excludes the hypothesis of wrist-cutting.

## Conflict of Interest

The authors declared that they had no conflicts of interest.



**Picture 1.** Plastic parts removed from the copper wire surrounding the left hand



**Picture 2.** Superficial lacerations on the inner face of the left wrist

## References

- [1] Ozdemir C, Tugcu H, Asil H, Din H. Primary complex suicide combining hanging and burn: A case report. *Adli Tip Bülteni*. 2006;11-2:75-9.
- [2] Ozdemir C, Tuğcu H, Poyraz R, Hancı İH. Kompleks İntihar: 2 olgu sunumu. 11. Ulusal Adli Tıp Günleri Paneller ve Poster Sunuları. 29 Eylül-3 Ekim;Antalya. 2004:201-4.
- [3] Racette S, Sauvageau A. Planned and unplanned complex suicides: a 5-year retrospective study. *Journal of forensic sciences*. 2007;52(2):449-52.
- [4] Bohnert M, Rothschild MA. Complex suicides by self-incineration. *Forensic science international*. 2003;131(2-3):197-201.
- [5] Bohnert M, Pollak S. [Complex suicides--a review of the literature]. *Archiv fur Kriminologie*. 2004;213(5-6):138-53.
- [6] Fatteh A, Gore SB, Mann GT, Garvin K. Suicide with two guns: a unique case. *Journal of forensic sciences*. 1980;25(4):883-5.
- [7] Hudson P. Suicide with two guns fired simultaneously. *Journal of forensic sciences*. 1982;27(1):6-7.
- [8] Parroni E, Caringi C, Ciallella C. Suicide with two guns represents a special type of combined suicide. *The American journal of forensic medicine and pathology*. 2002;23(4):329-33.
- [9] Padosch SA, Schmidt PH, Madea B. Planned complex suicide by self-poisoning and a manipulated blank revolver: remarkable findings due to multiple gunshot wounds and self-made wooden projectiles. *Journal of forensic sciences*. 2003;48(6):1371-8.
- [10] Turk EE, Anders S, Tsokos M. Planned complex suicide. Report of two autopsy cases of suicidal shot injury and subsequent self-immolation. *Forensic science international*. 2004;139(1):35-8.
- [11] Shkrum MJ, Johnston KA. Fire and suicide: a three-year study of self-immolation deaths. *Journal of forensic sciences*. 1992;37(1):208-21.
- [12] Jayanth SH, Girish Chandra YP, Hugar BS, Kainoor S. Secondary combined suicide pact. *Journal of forensic and legal medicine*. 2014;23:76-9.
- [13] Altun G. Planned complex suicide: report of three cases. *Forensic science international*. 2006;157(2-3):83-6.
- [14] Wick R, Gilbert JD, Simpson E, Byard RW. Fatal electrocution in adults--a 30-year study. *Medicine, science, and the law*. 2006;46(2):166-72.