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Forensic Science International

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Suicide by blunt head trauma - Two cases with striking similarities



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ARTICLE INFO

Article history:
Available online 12 August 2015

Keywords:
Blunt head trauma
Suicide
Self-inflicted head trauma

ABSTRACT

There have been several forensic pathological studies on the distinction between falls from height and homicidal blows in blunt head trauma, but few studies have focused on suicidal blows. Self-inflicted blunt head trauma is usually a part of a complex suicide with more than one suicidal method applied. Actually, no reports on suicide indicate blunt head trauma to be the singular cause of death in recent publications. Cases with self-inflicted blunt trauma are often challenging for those involved in the investigation because they are confronted with findings that are also found in homicides. A refined guideline to differentiate suicidal blows from homicidal blows in blunt head trauma allows for a more accurate representation of the events surrounding death.

This paper presents two cases of suicide by self-inflicted blunt head trauma in which blunt head trauma from repeatedly hitting the decedent's head with a hammer was considered to be the only cause of death.

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1. Introduction

In blunt head trauma, discriminating falls from homicidal blows presents a common problem to forensic pathologists. To resolve this problem, several criteria have been proposed. Unlike falls and blows, there are few studies focused on blunt head trauma analysis in suicide. It is extremely rare to find blunt head trauma as one of the causes of death in suicide cases other than falling from heights – in fact, no reports on suicide indicate blunt head trauma to be the singular cause of death. The lack of blunt head trauma studies in suicide necessitates a refined guideline to differentiate blunt head trauma in suicides from homicides, as well as accidents.

To identify the defining characteristics of suicide caused by blunt head trauma only, a 10-year retrospective study lasting from January 2003 until December 2012 was conducted on blunt head trauma cases from the National Forensic Service (NFS) database. Of 4981 cases of suicide, only two cases, with some concomitant circumstances indicating that a suicide had taken place, could be found. In two cases, self-inflicted blunt head trauma was considered to be the only cause of death.

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2. Case report

2.1. Case 1

A 64-year-old man was found dead on the kitchen floor lying in a supine position. There were heavy bloodstains on the floor around his body, and more were found elsewhere in the kitchen, bedroom, and bathroom as well as running down his face and scalp (Fig. 1). His wife first witnessed the scene. She found her deceased husband sitting on the floor, covered in blood marks and stains. She flipped him onto his back, resulting in the posture shown in Fig. 1. In the bathroom, a hammer weighing 2.4 kg was found with blood stains on the handle as well as on the head (Fig. 2). The main door of the house was locked. There were no signs of scuffle in his house. The decedent's psychiatric history was fit for a diagnosis of depressive mood disorder and there was a previous suicide attempt by agricultural pesticides ingestion.

At the autopsy, the only sources of significant hemorrhage were multiple scalp lacerations in the forehead, the crown of the head, and the occipital side of the scalp (Fig. 3).

Internally, there was a round, ovoid depressed area of skull fracturing, with comminution, in the central parietal area where the multiple skin lacerations were concentrated (Fig. 4).

There was no underlying cerebral damage or intracranial hemorrhage (Fig. 5)

Toxicological analysis of the blood revealed a diazepam level of 0.04 mg/L in the blood. No defense injuries or other indications of

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Fig. 1. The scene of death showing blood stains and pools around the deceased.



Fig. 2. Hammer with blood stains and bloody fingerprints.



Fig. 3. Injuries on the vertex.

an assault were found. The analysis of the bloody fingerprints on the hammer handle could be identified as the decedent's. It was concluded that the decedent had committed suicide by repeatedly hitting his head with a hammer.

The cause of death was given as blunt head trauma. The hemorrhage from head trauma was thought to be a major mechanism of death in this case.

2.2. Case 2

A 64-year-old woman was found dead on her bedroom floor, lying in a supine position. Her son had been the last person to see



Fig. 4. Fracture of the skull.



Fig. 5. Cerebrum with no remarkable injury.



Fig. 6. The scene of death showing pools of blood and blood stains on the floor and hammer.

her alive on the morning of the day of her death. The deceased had a history of depression, and was receiving treatment. However, she had no history of suicide attempts, and a suicide note was not discovered at the scene of death.

At the scene, she was found lying on her back with an obviously injured head and pooled blood under her body. There was a hammer near the body and blood splatters on the floor around her body, the walls, and the ceiling (Fig. 6).

Extensive, heavy blood pools could be found in the hallway between a bathroom nearby and the bedroom (Fig. 7). After hitting her head with the hammer, it seems she made her way from the bedroom to the bathroom in order to obtain a towel from the bathroom cabinet.

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