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Medico-legal and criminological suicide diagnosis on historical cases: testing a new methodology

Abstract

This work proposes a new combination of criteria for the suicide diagnosis applied to these three famous historical cases: Judas Iscariot, Antony and Cleopatra, Vincent Van Gogh. The specific criteria (suicide statistics and dynamics, correlation of types of injury and how they were produced, evidence gathered during official inspections in loco, and previous psychiatric disorders in the victim) have been applied to famous historical cases from different socio-cultural contexts and epochs in order to tackle the issue of suicide without prejudice. The results confirm the essential role of systematic analysis of all elements from an equivocal death crime scene investigation to be able to distinguish suicide from homicide or natural and accidental death. The scores obtained in each three examined case emphasize the relevance of every single criterion of the methodology for different scenarios.

Keywords: forensic science, equivocal death, crime scene investigation, investigative technique

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Introduction

The forensic practice clearly demonstrates that a predominant number of suicides have typical or frequent distinctive characteristics (i.e., common wound topography in the case of firearms injuries by short or long-barrelled weapons). However, some suicides show atypical or unusual features (i.e. multiple gunshot wounds or incomplete hanging).The practice of suicide has been known for a long time and in all cultures, although in some populations the self-inflicted death is not known, at least statistically. According to the IASP, International Association for Suicide Prevention, in 2013 the number of suicides worldwide was estimated to be nearly one million.[1] Looking at this number, it raises the urgency to provide crime scene operators (prosecutors, police officers, investigators, pathologists, forensic anthropologists),[2–4] with an investigative technique that allows them to recognize and distinguish, with a high degree of scientific probability suicide, from alternative manners of death limiting the risk of interpretation errors. Recently, a new methodology,[5] based on analyses of Italian case reports, has been proposed to the scientific and forensic community. The aim of the present study is to test this method on three famous historical cases.

Material and methods

The proposed categorization of the suicidal death derives from the application of criteria,[5] which corresponds to the answers to five questions, as evaluated by a specific scoring system. For the present test, and to improve the methodology, also score 0 has been described.

1. did the victim use a suicide method frequently observed during the time period and in the nation/culture of origin?
2. are the method and injuries compatible with suicide?
3. are multiple methods used or only one?
4. are the environment and crime scene consistent with suicide?
5. are there any indications of psychiatric disorder in the victim's medical history?

According to the final score achieved by a case, the suicide could be described as *typical* (overall score 0), *slightly atypical* (scores ranging from 1 to 2), *partially atypical* (scores 3-8), *grossly atypical* (scores 9-10). In case of a medium or high final score corresponding to partially or grossly atypical suicide, it is suggested to carry on an investigation as in suspected homicide or simulated suicide case. A slightly atypical suicide might indicate accidental death.

In the present paper, the scoring system has been applied to the historical suicides of Judas Iscariot (? – c 30-33 A.D.), Mark Anthony and Cleopatra, and Vincent Van Gogh.

Results

Judas Iscariot (I BC – I AD)

In the Jewish culture, suicide was considered as one of the most serious sins.

While in the New Testament only the suicide of Judas Iscariot is described, in the Old Testament five suicides and one homicide-suicide due to revenge are reported:

a) Samson buried himself in the rubble of the Temple of Dagon after making it collapse.[6]

b) Saul fell upon his sword, followed by his armour-bearer who refused to kill him.[6]

c) Ahithophel, advisor to King David, hanged himself.[6]

d) King Zimri setting himself on fire (self-immolation).[6]

e) Razis, one of the Elders of Ierusalem, self-stabbed with his sword, then cast himself down from a wall and plucked out his bowels.[6]

Even if there are these reports in the Bible, scoring the first

criterion could be unreliable due to the lack of real statistical data. However, applying a logical methodology, it is possible to assert that self-hanging and jumping from high could be both known practices at the time. Also the Ahithophel case represents a precedent. Score 1.

There is not a univocal description of Judas's suicide: in Matthew,[6] he hanged himself, while in Acts,[6] he *falling headfirst, he burst open in the middle and all his intestines spilled out*. Nevertheless it is possible to interpret the jumping/falling as a result of the brakeage of the tree branch to which the apostle tied the rope. If the hypothesis is correct (no data are available to support or deny this theory), the evisceration could be a consequence of the single dynamic used (jumping). Score 0.

a) Following the interpretation of the breakage of the tree's branch after the hanging, only one suicide technique was used. Score 0.

b) No details are available regarding the crime scene and it is not possible to score the criterion.

c) No previous medical history of psychiatric disorders in Judas exists; on one side it is possible to underline that he was the *keeper of the money bag,[6]* of Apostles, a possible clue of a trustable person, while on the other side, the moment at which *Satan then entered into him,[6]* could be interpreted as an alteration of his state of mind. Score 1.

Mark Antony (Rome 83 BC – Alexandria 30 BC)

1. There are non-statistical records on suicide in the Roman period, but the Latin literature reports cases of high rank Roman citizens, both males and females, who committed suicide sword such as Nero in Suetonius,[7] and Lucrezia in Titus Livius,[8] Score 1.
2. Plutarch reports a quite realistic scenario: the single stab on the abdomen (κοιλία) was not sufficient to immediately kill him, and Antony bled to death after some time.[9] Score 0.
3. The death is due to a single stab in the abdomen. Therefore only one method was used. Score 0.
4. No available data are from the crime scene.
5. Ancient authors are not concordant and show an enigmatic and contradictory personality.[10]

The father died young, and Antony developed a close relationship with his mother, who had a rebellious attitude.[11,12] He acted honourably with the brothers, even if Cicero and Plutarch describe his dissolute life, with orgies, gamble, debts and bad companies.[13,14] He started to be involved in the aristocracy,[15] and had two main friends: Clodius and Curio. He always carried a weapon with him and wanted to be escorted by soldiers even in the town. Plutarch seems to describe a double-side life: a great respected military commander and an extravagant and lustful aristocrat. He had five wives and especially with Fulvia and Octavia, his conduct was exemplary. After he met Cleopatra in the 41 BC, five years later he divorced from Octavia to marry the Egyptian queen in 36 BC. During their relationship, Antony showed a reduced decision-making capacity, becoming dependent emotionally and physically to Cleopatra (Plutarch); he also assimilated the Egyptian lifestyle and behaviours.[16] One year before his death, Antony faced a deep depression due to the military and political changes in which he was involved.[17] Score 1.

Cleopatra VII Thea Philopatore (Alexandria 69 BC- 30 BC)

1. There are no statistical records on suicide in the Egyptian period and culture; in addition, ancient authors are not concordant on the used methods (snake bite, poisoned comb, poison in a self-inflicted bite). The use of poison could be well known in the Egyptian pharmacopoeia, and the cobra's bite was a common capital punishment in Ancient Egypt. Cleopatra could have used the snake according to the belief that the animal gives immortality to its victims.[18] Score 0.
2. Even though some authors describe different sources.[19] Cleopatra death was due to (self)poisoning; Cassius Dio reported that the only wounds discovered on her body were on the arm, which is compatible with the use of both a snake and a comb.[20,21] Score 0.
3. The death is obtained by a snake bite, therefore only one method was used. Score 0.
4. The snake was not found in the scene when Octavian and his soldiers discovered the body,[22] even if it is reported that traces were visible on the sand outside the building. During Octavian triumph in Rome (27 BC), a panel showed the scene with also two female servants (Charmian and Iras) aside the queen. Strabo raised some concerns regarding the self-inflicted death, suggesting a possible involvement of the Octavian, but Cleopatra's personal physician hypothesized that it was suicide by poisoning. Regarding the snake, in order to kill a human adult, it is more likely that an adult cobra was used instead of asps, which is not common in Egypt and also has less poison. If more than one corpse was discovered, it is reasonable to think that more than one snake were involved.[23] No data are available on the presence of other servants (e.g. an eunuch) during the suicide or when the dead bodies were discovered. Score 2.
5. No report was found concerning neurological or psychiatric disorders. Cleopatra attempted to commit suicide few days before her death when she heard the false notice of Marcus Anthonius's death.[24] The fact could originate a reactive anxiety-depressive condition. Score 0.

Vincent Van Gogh (Zundert 1853 – Auvers-sur-Oise 1890).

1. The nearest historical data for a comparative study is from the 1950s: in Netherlands suicide ratio was 5.5x100.000 habitants (7.4 males e 3.7 females); the most frequent techniques were: hanging, drowning, firearms, throat cutting, jumping from high, hitting by train, poisoning. From 1010 the suicide ratio in Netherlands increased from 6 to 10 per 100.000 inhabitants .[25] Score 1.
2. Entrance gunshot to the upper part of the abdomen.[26] When the innkeeper Gustav Ravoux came in the room following the moans, Van Gogh admitted "I hurt myself". The external examination performed by physicians confirmed he was hit by a small-calibre gun; the bullet entered at an angle from a distance and no exit wound was detected.[26] No autopsy was performed. Score 2.
3. Death from one gunshot wound; only one method was used. Score 0.

4. The event took place in Auvers-sur-Oise the 27th of July 1890; no witnesses and the exact location where he was shot (by himself or not) was not determined. The physicians manually inspected the back of the victim and reported that the bullet had not come out and was still near the spine; they also noted that the entrance wound was not a contact one: the small calibre bullet entered with a non-perpendicular angle and was shot from a distance. The weapon used was borrowed by Van Gogh from the owner of the hotel where he was housed; the gun and the Van Gogh's painting tools were never recovered.[26] Score 2.

5. In the medical history, psychotic episodes are recurrent since he was 27 years old[27] and became more frequent during the last two years of his life. He had an eccentric personality and mood changes.[28] It was proposed that he was affected by epilepsy due to the absinthe addiction,[29] and, maybe by syphiliss.[30–32] Other medical hypothesis describes him affected by acute intermittent porphyria,[33] which was the cause of visual and auditory hallucinations, as much as partial epileptic manifestations.[34] According to Felix Rey, medical doctor at Aries's Hospital, Van Gogh cut the most caudal part of his left hear in the throes of auditory hallucinations the 23rd of December 1888. Van Gogh went back to the brothel where he was before the episode and gave the severed ear to a prostitute asking her to "keep this object carefully".[35] He was hosted in the Saint Paul de Mausole Asylum at St. Rèmy for just over a year (May 8, 1889 to May 16,1890), immediately before his death.[36] Score 1.

Discussion

In Judas Iscariot, Antony and Cleopatra cases, missing data from crime scene investigation, autopsy and statistical evaluation of the suicide ratio for the epoch and culture made the application of the scientific classification difficult, underling how much is important to analyse every little element available in forensic investigations. In addition, also the reliability of the historical sources and authors should be taken into consideration. However, Judas Iscariot, Antony and Cleopatra obtain at least 2 points that classify their deaths as *slightly atypical* suicide. The most interesting case, also one with more data available, is the Vincent Van Gogh suicide, which can be classified as *partially atypical* (6 points). Further historical investigations on this case could be helpful to understand if this was actually a suicide or a homicide. The presented study also suggests that the high scores obtained, corresponding to grossly atypical suicide, should be used in the death scene investigation for the diagnosis of potential homicide. This highlights the potentials of Massaro's scoring system,[5] with the supplementary value 0 proposed in the present contribution, as an additional tool for forensic investigators. Even if the presented analysis has some limitations due to the historical data, it demonstrates the applicability and reliability of the proposed scoring system and how it could be tested in the future for its validation and application in suspected suicides or equivocal death investigation. In addition, the present study provides an additional score (the value "0") to Massaro's methodology, increasing its applicability and accuracy.

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Conflcit of interest

Authors declare there is no conflcit of interest.

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