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 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 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

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 investigation as in suspected homicide or simulated suicide case. A forensic anthropologist, together with other medical professionals, may use systematic analytical methods to support the determination of the cause of death.²

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 Jerusalem, 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
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The father died young, and Antony developed a close relationship with his mother, who had a rebellious attitude. He acted honourably with the brothers, even if Cicero and Plutarch describe his dissolute life, with orgies, gamble, debts and bad companies. He started to be involved in the aristocracy, 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. One year before his death, Antony faced a deep depression due to the military and political changes in which he was involved.

Cléopâtre VII Théa 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. Score 0.

2. Even though some authors describe different sources, 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. Score 2.

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, 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 (Charmirian and Irs) 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. 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. 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. Score 1.

2. Entrance gunshot to the upper part of the abdomen. 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. 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 caliber 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. Score 2.

5. In the medical history, psychotic episodes are recurrent since he was 27 years old and became more frequent during the last two years of his life. He had an eccentric personality and mood changes. It was proposed that he was affected by epilepsy due to the absinthe addiction, and, maybe by syphilis. Other medical hypothesis describes him affected by acute intermittent porphyria, which was the cause of visual and auditory hallucinations, as much as partial epileptic manifestations. According to Felix Rey, medical doctor at Aries’s Hospital, Van Gogh cut the most caudal part of his left ear 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”. He was hosted in the Saint Paul de Mausole Asylum at St. Rémy for just over a year (May 8, 1889 to May 16,1890), immediately before his death. 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, 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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None.

Conflict of interest

Authors declare there is no conflict of interest.

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