E56   Death Scene Investigation: Limitations and Potentials of a Logical Investigative Process

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After attending this presentation, attendees will understand the logic and statistics regarding mental prejudices and scientific reasoning which may interact, negatively influencing the results of a death scene investigation during the phases of observation, collection, and interpretation of data.

This presentation will impact the forensic science community by proposing a revision of the logic and scientific procedure used to identify manner of death (natural, accidental, suicide, or homicide).

Investigators (police officers, pathologists, anthropologists, etc.) who visit the scene must ascertain the facts, according to individual expertize. Although the professionality of forensic teams is high, an error of evaluation is always possible (e.g., misinterpretation of natural death as homicide or vice versa suicide as homicide).

More or less abstractedly, in the bodies or on the death scene, investigators search for pathognomonic evidence of manners of death: a lesion on the body, its suspect position, something anomalous in the surrounding environment, etc.

In this operative context, investigators' mental orientations, partly due to the conditions under which they operate, may lead to a kind of bypassing of usual reasoning or, in particular, neglecting national statistics regarding the cause of death. Investigators must be acquainted with this kind of contextualization, as an objective datum.

In this study, the United States and Italy were compared. In both countries, the number of deaths due to natural causes is far greater than that of homicides, which in turn is far higher than that of accidental deaths. For example, in 2013 in the United States, there were 41,149 suicides and 12,253 homicides[1, 2]. In Italy, natural causes of death totaled 613,520, suicides 4,258, and homicides 464.[3]

Although the current practice is to refer to a suspicious death as if it were a case of homicide, statistics require various systems of reference in cases of investigative reasoning. First, the possibility that the death is not due to natural causes must be considered, followed by that of suicide, homicide and, lastly, accidental death.

In addition, testified causes of death (e.g., in hospital) must be distinguished from untestified causes. This new distinction, not always included in Italian systems of classification, could reverse statistics regarding the first two causes of death, natural death and suicide, so that the first cause of death to be verified in a death scene would be suicide.

Nevertheless, forensic requirements must be remembered: any crime scene investigators must know how to work on a death scene without the risk of compromising future investigations. This means integrating logistic-statistic requirements with those of criminal investigation.

When ascertaining the cause of death, reasoning must always be carried out step by step, assessing aspects regarding the type of death, starting from the most significant statistical categories.

In order to facilitate a logical and scientific examination, a criterion of classification, integrating investigative needs (timing, evidence of contamination, etc.) and limiting possible errors due to excessive use of intuition is proposed.

In conclusion, this study focuses on the need to prioritize analysis of the manner of death according to its statistical frequency within the reference context. In addition, this study proposes a checklist of points to be analyzed in every case, to sustain the logical procedure of analysis and assessment. This checklist evaluates several variables by a scoring system to improve the reconstruction of the events: evidence on/of the body, external examination of the corpse, information regarding the victim (any hospitalizations, drugs taken, diseases), weapons or dangerous instruments near the body, witnesses statements, autopsy, and laboratory tests on biological samples.

Reference(s):

1. http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.PDF last access 07.24.16.
2. https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/offenses-known-to-law-enforcement/expanded-homicide/expanded_homicide_data_table_11_murder_circumstances_by_weapon_2013.xls, last access 07.24.16.
3. http://www.istat.it/it/files/2014/12/Principali_cause_morte_2012.pdf?title=Principali+cause+di+morte+in+Italia+-+03%2Fdic%2F2014+-+Testo+integrale.pdf last access 07.24.16.

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