

Exhumation- A key to supporting homicide victims' justice: Situation in Hyderabad District of Pakistan. A cross sectional study

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Abstract

Aim: To learn more about the circumstances in the study area as well as the risk factors that obstruct justice in exhumed instances.

Study Design: Cross sectional study

Place and duration:

Method: There were 27 samples of exhumation. Only 13 of the 27 instances were positive (autopsy). Due to severe decomposition/putrefaction of the remains, autopsy results in the remaining 14 cases remained unclear.

Results: Throughout the research period, 27 exhumations (autopsies) were performed. There were 22 cases involving men and 5 cases involving women. On the basis of age, the cases were classified into four groups. Group 1 is 0–18 years old, Group 2 is 19–35 years old, Group 3 is 36–50 years old, and Group 4 is 51–70 years old. The maximum number of cases were 19 (70.37 %) in group-2, while the smallest is 1 in group-1 (3.70 percent). Only 13 of the 27 instances had a cause of death determined, and the bulk of these were firearm injuries (46.15 %), 3 drowning cases (23.08 %), 2 strangled case (15.38 %), and two blunt trauma case. The overall success rate maintained at 48.14%. On exhumation, there were 24 instances of primary autopsy (first time) and three cases of secondary autopsy (re-examination).

Conclusion: About half of the cases in our analysis had a cause of death that could be determined. In most cases gunshot injuries were the cause of death. The duration of exhumation and the cemetery soil impact the success percentage in challenge cases. There should be no needless delay in conducting exhumation if foul play is suspected. Total 90% of the data may be retrieved if exhumation is done within days following burial.

Keywords: Autopsy, exhumation, firearm injuries, drowning

Introduction:

Exhumation is a Latin term that meaning "from the earth" and refers to in its most basic form, the removal of human remains, including cremated remains, from any burial location. If there is any reason an exhumation permission or order will be necessary if the remains must be examined, removed, or disturbed after they have been entered or cremated into the grave, whether in a coffin or cremated remains in a container or poured into the earth from a container. [1-3] Under the direction of relevant authorities, exhumation is carried out with certain goals in mind:

Identification: Confirming the individuality of the deceased for any criminal or legal matters that may arise after the burial. Death Factors: Exhumation may be necessary to determine the cause of death when foul play is suspected, based on public demand or family demands and Second autopsy: when the original autopsy report is called into question or is confusing. This might be a criminal or civil matter.

Because Exhumation of dead person or human remains a highly emotional and sensitive subject, particularly for the deceased's family and friends, it is necessary to act lawfully to ensure the health and safety of those involved in the exhumation as well as to control public health issues. [4] Exhumation is often used in our nation to determine the cause of death when foul play is suspected and family request it. [5] They file a complaint with the district commission officer (DCO) or Sessions Judge via the local police. After that, a medical board is constituted with the authority's permission, and the exhumation operation is carried out in the presence of a judge and a police squad. Disturbing human remains without legal authorization is both unlawful and unethical. This is true for both corpses and cremated remains that are buried below ground level. [6] The deceased's next-of-kin should generally apply for exhumation to the appropriate legal authorities. The stages of exhumation are as follows: precautions in general, identification of the burial, its opening, and the gathering of soil samples, identification of the coffin and sample collection, corpse is identified by a magistrate or a coroner and the autopsy

The success of identifying the cause of death is determined on the state of the body at the time of exhumation. The cause of death is in the vital organs or systems composed of soft tissues, and that the rate of success is dependent on the condition of the body, a comprehensive investigation is necessary. [7] When a soft tissue has been negatively impacted by advance decomposition, no definitive opinion regarding the origin of the damage and whether it is ante mortem or otherwise can be given with certainty, the results of exhumation are dependent on the length of time after death. In the United Kingdom, private companies do exhumation, the government only issues licenses. [8]

Exhumation services are performed throughout Europe and other parts of the globe not just for forensic objectives, as they are in our nation, but also for grave changes, relocations from abroad, and conversions from burial to cremation. [9] If corpses are unearthed and the perpetrator can be arrested, DNA from sperm may aid in the identification of the attacker in murder cases. [10] A body may be exhumed for DNA testing to confirm paternity after a hundred years. [11]

The present study is conducted to learn more about the circumstances in the study area as well as the risk factors that obstruct justice in exhumed instances

Methodology:

It is a descriptive, observational, and retrospective study of 27 medico-legal exhumations conducted in the district *location* by the Casualty Medical Officers (CMOs) of the medical board created by the local hospital's Medical Superintendent. during a period of three-and-a-half-year period, from *period*. This research includes exhumations from both urban and rural places, as well as men and girls from district *location*. The information was gathered through autopsy reports issued at the conclusion of the exhumation operation. At the time of exhumation, data on several characteristics such as age, gender, cause of death, state of putrefaction, and accusation were obtained. Only 13 of the 27 instances were positive (autopsy). Due to severe decomposition/putrefaction of the remains, autopsy results in the remaining 14

instances remained unclear. Before beginning the research, the ethics committee's clearance was sought, and the data was published in a medical journal.

Results:

Table: 1 Age groups of Exhumation cases

| Age Groups (Years) | Cases (n=27) | Percentage |
|--------------------|--------------|------------|
| 1–18 | 1 | 3.70 |
| 18–35 | 19 | 70.37 |
| 36–50 | 5 | 18.51 |
| 51–70 | 2 | 7.40 |

During the research period, a total of 27 exhumations were place in various districts throughout the *location*. There were 22 instances involving men and 5 cases involving women. Based on age, they were separated into four groups. Group 1 is 0–18 years old, Group 2 is 19–35 years old, Group 3 is 36–50 years old, and Group 4 is 51–70 years old. The majority of disputed murder instances involved young boys or girls, indicating that the crimes were motivated by hatred. Only 9 out of 21 instances had a cause of death determined, with the bulk of these being gunshot injuries (46.15%), drowning (23.08%), strangling (15.38%), and blunt trauma (15.38%). 24 of the 27 exhumations were for main autopsy, while the other 3 were for secondary autopsy.

Table 2: Mode of death in positive autopsy Exhumation cases

| Mode of death | No. of Cases | Percentage |
|------------------|--------------|------------|
| Gunshot injuries | 6 | 46.16 |
| Overflowing | 3 | 23.08 |
| Blunt Trauma | 2 | 15.38 |
| Decapitation | 2 | 15.38 |

Table 3: Age and Sex distribution of Exhumed cases

| Age (Years) | Male | Female | Total |
|--------------|-----------|----------|-----------|
| 1-18 | 1 | 0 | 1 |
| 19-35 | 15 | 4 | 19 |
| 36-50 | 4 | 1 | 5 |
| 41-70 | 2 | 0 | 2 |
| Total | 22 | 5 | 27 |

Discussion:

Most cultures who bury their dead see exhumation or disinterment as a disrespectful and socially unacceptable (taboo) action.[12] Exhumation, on the other hand, is done all throughout the globe for a variety of reasons, regardless of culture or religion.[13] Exhumation is most often requested for medico-legal reasons, i.e., If a person dies under suspicious circumstances, the police may request that the body be exhumed to determine the cause of death.[14] There are several other religious, cultural, and sociological reasons that's why exhumation is practiced in various regions of the world, including the following.: exhumation is often done for cultural reasons, individuals who died without being recognized or who were misidentified at the time of burial.

In Hong Kong, exhumation orders mandate that graves in government cemeteries be disinterred after six years. The remains are collected for cremation and reburied in an urn or niche, either privately or by the government. Unclaimed graves are exhumed and cremated by the government. In private cemeteries, permanent burials are authorized. When a cemetery is moved, many people's remains are exhumed. Religious and governmental standards, on the other hand, are met. Exhumation is prohibited under Jewish law.

Only 13 out of 27 instances in our analysis had a cause of death that could be determined. Because autopsy results were unknown in the other 14 instances, the success rate was 48.14 percent, and the failure rate was 51.85 percent. The failure is due to the long codal technique of exhumation, the environment, and the burial process. Except for November to February, when the air temperature is below normal body temperature, the rest of the year in most regions in our nation, including our research location, the temperature is higher than the body temperature. Putrefaction begins within a week because of this environmental condition. Putrefaction is delayed in Europe, where the ambient temperature stays below normal body temperature throughout the year. Furthermore, after some embalming, the dead are buried in a wooden or iron coffin, which further slows putrefaction. [15] As a result, the success rate of exhumation in Europe is higher than in our nation. Although the incidence of foul play in homicidal deaths is consistent throughout the nation, the success rate in challenge cases is mostly determined by the length of exhumation and cemetery soil.[16] Matters are not treated seriously or scientifically in our culture. There should be no needless delay in conducting exhumation if foul play is suspected. If exhumation is done within a few days after burial, 90 percent of the findings may be obtained. Unnecessary delays and unfavorable outcomes are caused by our customs, police, and judicial systems working together. Similarly, laboratory reports aren't always trustworthy. Bribes are easy to get by for those engaged. The vast bulk of the cases were from rural areas across many districts. It suggests that criminal behavior is more widespread in rural areas than in urban areas.

Conclusion:

About half of the cases in our analysis had a cause of death that could be determined. In most cases gunshot injuries were the cause of death. The success percentage in challenge cases is mostly determined by the length of exhumation and the cemetery's soil. There should be no needless delay in conducting exhumation if foul play is suspected. 90 percent of the results may be retrieved if exhumation is done within days following burial.

Permission:

It was taken from the ethical review committee of the institute

Conflict of interest:

None

Funding source:

None

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