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CASE REPORT

Antemortem Injuries or Postmortem Mutilation?- A Case Report

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Abstract:

Only a few cases of homicidal decapitation have been sporadically reported in Forensic literature. Sometimes, the autopsy surgeon may encounter cases in which the distinction between a vital or post-mortem phenomenon is arduous. Suicides by self-decapitation have been reported in India, for instance, individuals deliberately place their necks onto the railway track while a train is approaching. Also, unintentional decapitations are possible in cases of suicide as in hangings. Accidental decapitation may also occur, for example, in train fatalities, industrial accidents and injuries during road and motor vehicular accidents. The most exceptional cases are homicidal decapitation. It has been used as a manner of death to carry out executions for centuries and is still used in some countries today. Dismemberment or post-mortem mutilation of a corpse has always been viewed as more appalling than the homicide itself. It usually occurs when the killing takes place without any prior planning. In this report, an 80-year-old female was decapitated and found in a mutilated state. It was determined that the victim was decapitated and dismembered by her 25-year-old grandnephew, who was receiving treatment for psychiatric illness on and off for the past 10 years and had just been discharged from the inpatient mental health facility only the previous day. Decapitation along with other post-mortem mutilations were present on the body. The motives for dismemberment and decapitation are considered to be aggressive, defensive, and offensive. The combination of history, crime scene findings, and autopsy findings will help to distinguish the mode as well as the nature of the injury whether antemortem or post-mortem. Moreover, we also wish to highlight the role of psychiatric illness and especially the importance of swift intervention and treatment.

Keywords: Decapitation; Mutilation, Dismemberment; Homicide; Parricide; Mental illness.

Introduction:

Decapitation refers to the act of complete separation of the head from the body by cutting, tearing, pulling, or otherwise. It has been utilized as a method of killing throughout history from as early as the Neolithic age.[1] The presence of vital structures in the area of the neck, like the common carotid arteries and jugular veins, and the trachea makes it an ideal anatomy for intentional decapitation. It is the second most common type of non-compressive injuries to the neck.[2] Decapitation by homicidal manner is rare as it suggests the condition of the deceased who was probably defenceless during the attack and a particular weapon, isolated place, and plenty of time. The mode of death in decapitation may be difficult to explain unless there is a proper history, weapon of offense and the decapitated head. “Dismemberment” is the term used to define the detachment of the limbs and/or the head from the trunk at the level of the respective joints, or the subdivision of the thorax, the abdomen, or the limbs into respective segments.[3] It is a relatively rare method that the murderer uses sharp cutting weapons such as saw, axe, etc. in order to sever the limbs and/or cut the body into small pieces alongwith with the evisceration of organs. It is generally carried out immediately after the crime, although less often a long time may pass between the two events. Dismemberment or post-mortem mutilation allows the murderer to clear the scene of the crime. It also makes it easier to transport the body to remote places during daytime without raising suspicion. Finally, it also delays the identification of the victim. Thus, for the above reasons the investigation of crime is delayed. Many studies have shown that there is usually a familial or interpersonal relationship between the murderer and the victim in cases of dismemberment or mutilation. They have also indicated a link between the reason for the crime and the dismemberment.[4–7] In particular, Puschel and Koops have carried out a classification according to the motives of perpetrators consisting of three groups: sexual perversion, psychosis, and other psychiatric disorders.[8]

Dismemberment can occur in life or after death. In some cases, hemorrhage during the dissection of the victim is the main cause of death, while in others, the mutilation occurs after the death due to some other cause. It may be hard to establish the cause of death because the lesions produced during dismemberment may cover or be confused with those that caused the death. The key role of the forensic pathologist is to differentiate the vital injuries from the post-mortem lesions. In many forensic cases, it is complicated to determine the cause of death. In fact, it remains an unresolved query for forensic pathologists and investigators. The crime scene and autopsy findings of a parricide case by decapitation and dismemberment by the victim's schizophrenic grandnephew are evaluated together with the data in the literature.

Case Report:

An 80-year-old widowed female was staying with her grandnephew only since the prior day on the top story of a one-story building. Her grandniece, who was the sister of the perpetrator, was the one who called the police. The deceased and

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Figure. 1 Crime scene showing decapitated and dismembered corpse on mattress with decapitated head on nearby sofa.

Figure. 2 Crime scene showing dismembered organs and body parts in bag along with one of the alleged weapons of offence.

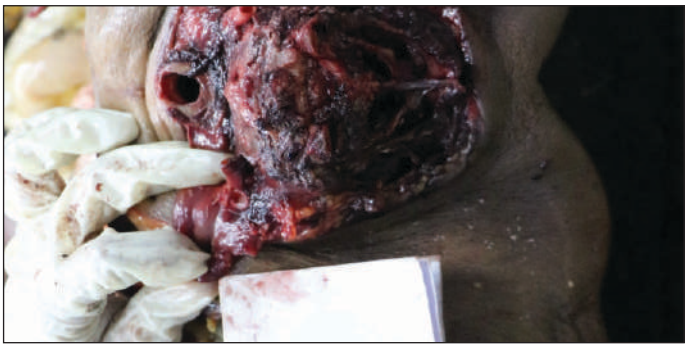

Figure. 3 Decapitation injury at the lower level of neck.

the perpetrator had become uncontactable and were not responding to calls since morning. As she was staying on the ground floor of the house, she went upstairs and knocked on the door mid-morning. The perpetrator answered the door with a knife in his hand and blood-soaked clothes, the deceased was nowhere to be seen. Upon entering the house, the police found the victim's corpse between the sofa and table in a prone position lying on a mattress. The 25-year-old perpetrator was sitting on the sofa. The deceased's lower clothes and undergarments were undressed up to the knees and upper clothes were stripped open. The mattress and the ground beneath the body were blood soaked and there was a large quantity of blood present. The deceased clothes were also blood stained. The deceased's decapitated head was found at one end of the sofa (Fig 1). Her breasts and thorax

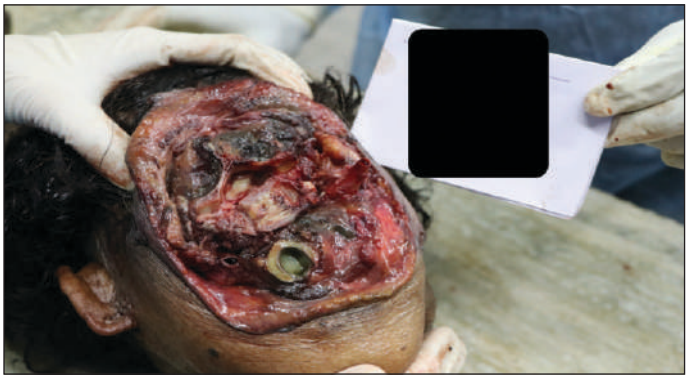

Figure. 4 Decapitation injury at the upper level of neck.

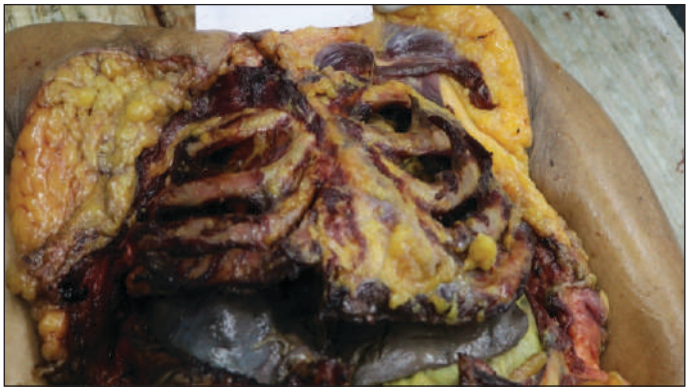

Figure. 5 Dismembered corpse showing exposed thorax & mutilated organs.

were dismembered and cut open. The breast, thoracic and parts of abdominal organs were removed and placed in vessels and plastic bags in the room and were recovered after careful and thorough examination of the crime scene (Fig 2). There was no attempt by the perpetrator to clean the blood or crime scene. Two single edged knives were found near the vessels stained with blood. Further probing of the incidence revealed that he had been in and out of mental health institutions for ten years for undiagnosed mental illness and addictions. Their parents were working in the middle east and had not come down to visit due to the strict Covid rules and restrictions. He had been an inpatient at a mental health facility and was discharged only the previous day for reasons unknown.

Autopsy Findings:

The body was that of an elderly woman. The head was completely detached from the trunk and was brought separately. Examination showed that the head had been severed, i.e., decapitation injury at the base of neck. Upper level of decapitation injury had antero-posterior length of 8 cm and a lateral length of 9 cm with the margins at a level 4 cm below the right mastoid, 8 cm below the chin, 5 cm below the left mastoid and 13 cm below the external occipital protuberance. The skull vault and base of the skull were intact. All the deep structures of the neck were severed at the level of C-2 and C-6 vertebrae over upper and lower level respectively with complete disarticulation; multiple grooves present over the cut ends of the vertebral bodies (Fig 3). Lower end of decapitation injury had anterior posterior length of 9 cm and lateral length of 10 cm with margins present 5 cm above the suprasternal notch and 11 cm from right shoulder and 12 cm from left shoulder. All the major vessels of the neck were clean cut at different levels.

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The wound margins of the decapitation injury along with skin and muscles, thorax, oesophagus, and major vessels of the neck were clean cut, with multiple sharp angled ends with extravasation of blood in the underlying soft tissues. C3-C5 vertebrae along with thyroid gland, thyroid cartilage and hyoid bone were missing along with corresponding muscles, soft tissues, nerves, and vessels (Fig 4). Incised wounds were present over the anterior aspect of thorax and upper part of abdomen. The underlying soft tissues and bones of the thorax along with peritoneum, transverse colon, some coils of intestines and liver were exposed. Flap of skin over the upper half of the thorax were missing with thoracic organs visible through intercostal spaces. Disarticulation of the right 6th rib at the level of costochondral junction, the costal arch from the sternum and the left costal arch from sternum. All disarticulated margins were pale in colour with the intercostal muscles of the upper six ribs on both sides being disrupted and separated. Another Incised wound was present on right breast and left breast with removal of the entire breast tissue, areola, and nipple along with pectoralis major and minor muscles. The margins of the wound were pale and clean cut with multiple sharp angles with no extravasation of blood in underlying soft tissue with exposed muscle darkened (Fig 5).

The left lung, heart and liver were completely severed at their attachments and loosely placed in their anatomical positions by the casualty doctor. All of the internal organs were pale. The morphology of the injuries suggested that they had been inflicted by a sharp instrument and had been cut off by several incisions, as indicated by many sharp-angled skin ends and superficial cut wounds. Massive blood aspiration, soft tissue hemorrhage surrounding the lesions and pallor of the inner organs as signs of bleeding out, were present, indicating that the injuries over neck were vital. Death was attributed to massive neck injuries with decapitation in combination with blood loss. The absence of ligature marks on the hands and feet of the deceased and negative chemical analysis report indicates that the perpetrator has probably overpowered her while she was sleeping and also due to the advanced age of the deceased.

Discussion:

Decapitation, which is the severing of the head from the rest of the body, was commonly used as a method of carrying out capital punishment and followed in certain countries even today.[9] In recent headlines, beheadings are increasingly being used as a propaganda tool as well as to carry out hostage killings by many terrorists and insurgent groups.[10,11] Complete and sole decapitation without any further mutilation of the victim is rare. Decapitation has been reported in accidental, suicidal, and homicidal deaths, wherein accidental and suicidal deaths take precedence over homicidal in India. Among suicides, decapitation can be seen in hanging deaths and train trespassing pedestrian fatalities which is also one of the commonest causes of accidental deaths in India, having a robust rail system.[12–14,] Another avenue of accidental deaths is road traffic accidents. A case has even been reported of decapitation in a motorcycle accident.[15] Occasionally, it might be difficult for the forensic pathologist to distinguish between the different modes of death in cases of decapitation. Homicide can be confirmed since part of vital decapitation is indicated at autopsy by a strong vital reaction in the wound margins, massive blood aspiration, and signs of external blood loss. In this case, the finding of complete vital decapitation using a sharp tool, together with the morphology of the wound margins on both ends of the disconnected vertebral column exhibiting countless grooves, any other mode of death could easily be excluded, and the decapitation could be concluded as the primary cause of death. Postmortem mutilation or dismemberment of a corpse is considered a more hideous crime than the actual homicide itself. During the Middle Ages, criminals committing grave crimes were sentenced to death, with an additional punishment., dismemberment (truncatio membrorum) of his corpse, with the remains being, for example, scattered to the four winds.[3] Puschel and Koops divide this group of crimes based on the motives that guide the perpetrators into sexual perversions, psychoses and affects. Perpetrators governed by sexual motives mutilate the corpse in a way that does not raise any doubt as to their motivation, most commonly severing the genital organs or breasts. In some cases, the perpetrator pulls out abdominal organs through the disrupted genital tract.[8] The division into defensive and offensive mutilations was proposed by Ziemke in 1918.[16] In 1987, Puschel and Koops extended this classification to include aggressive mutilations and necromaniac mutilations.[8]

The perpetrators of crime act mostly with the aim of facilitating body removal, covering up the traces of the crime and hindering identification known as defensive mutilation. In aggressive mutilation they are motivated by aggression against the victim, expressed after the victim's death. Dismemberment that accompanies lust murder or necrosadistic murders, i.e., offensive mutilation and winning a trophy as a fetish, i.e., necromaniac mutilation are another two types of mutilation.[17,18] Based on the history and crime scene aggressive mutilation was suggested for our case.

Parricides are defined as the killing of a parent or near relative. It is divided into two categories: adolescents which are often linked to stories of abuse or mistreatment and adults which are usually perpetrated by individuals of psychiatric disorders with conflictual relationships. Some studies have analysed the reasons for parricide and have revealed that parricide could increase in the presence of mental disorders or in the absence of adequate treatment in subjects with psychiatric disorders. Moreover, the attackers are usually suffering from schizophrenia with symptoms of active psychosis at the time of the crime and persecutory motivation is often evident.[19–23] Also dismemberment of a body after death may be a manifestation of a significant psychiatric illness and the crime is usually done at the home of the victim, with the use of weapons which are more conveniently available, which was just the matter in our case.

Conclusion:

The combination of death scene findings and autopsy results will in most decapitations allow to distinguish between homicidal and other modes of death. Postmortem decapitation or vital complete decapitation with sharp tools and the presence of additional injuries (vital or post-mortem infliction) as signs of aggressive mutilation or offensive mutilation always indicates the homicidal nature of the act. Homicides ending with mutilation or

dismemberment are most commonly committed by those who are close to or related to the victim. It is generally prepared at the site of homicide and is not generally pre planned. Further, the case showed a unique relationship between parricide/ homicide, dismemberment, and a lack of antipsychotic treatment in the murderer with mental illness.

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