

Case Report

Autopsy in an Embalmed Corpse: A Case Report

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Abstract

Medico-legal autopsy in an embalmed body is an extremely infrequent incidence. One such case has been conducted at Kolkata Police Morgue. The dead body was donated at department of Anatomy for academic dissection purpose by medical students, as desired by the deceased before death. The body was embalmed for preservation. But sixteen days after death, a complaint has been lodged by one of the legal heir having a suspicion of foul play. Hence the autopsy was performed on the order of the honorable court to ascertain actual cause and manner of death. There was a history of head injury due to fall from bed. On admission, surgical intervention was done at a nursing home but no police case was filed at that time. During autopsy all the injuries were evidently identified. The merits and demerits of autopsy on such embalmed body have been discussed in the case report. Embalming artefacts should be dealt with extreme caution before giving opinion.

Key Words: Embalmed corpse, Medico-legal autopsy, Head Injury

Introduction:

Embalming is the process of preservation of cadaver to prevent decomposition using antiseptics and preservatives. The ancient Egyptian technique of preservation involved evacuation of the intestinal contents and internal organs followed by use of some chemical agents.

The exact process followed by the Egyptians is not yet clearly known. [1] By this method there is coagulation of proteins, fixation of tissues and organs are hardened. Because of chemical stiffness due to embalming, normal rigor mortis does not develop.

Hanzlick has pointed out some predictable embalming artifacts. [2] According to Rivers, such procedure may simulate injuries and diseases, alter surgical wounds, eradicate trace evidences and alter postmortem changes. [3] In the present case embalming fluid was introduced via the femoral artery and the body was kept dipped into a formalin solution chamber for 16 days.

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Post embalming medico legal autopsy after a period of more than two weeks is an uncommon occurrence and has rarely been reported in literature.

Case History:

A dead body of a male aged 70 years was donated at Department of Anatomy, Medical College, Kolkata, India. The body was embalmed as a routine procedure before use for academic dissection by the students. Sixteen days after death, one of the relatives of the deceased complained to the police demanding post mortem examination as he was not satisfied regarding the cause of death as certified by the doctor – “**Cardio respiratory arrest in a case of intra cranial haemorrhage**”.

There was history of fall from bed followed by unconsciousness before admission at a nursing home. Neurosurgical intervention was done but the person expired. No police case was registered in the nursing home. On the orders of the honorable court police seized the body from the Department of Anatomy and sent it for medico-legal autopsy.

Autopsy Findings:

On examination a lacerated wound measuring 3cm X 1.5 cm X bone depth was noted on the left side of forehead 3 cm above the eye brow. It was stitched and the age matched with the date of fall.

One surgically made incised wound was found over left temporal-parietal area of scalp measuring 12 cm in length. (Fig. 1) A loose bone segment measuring 8cm X 3.5cm was found underneath. (Fig. 2) The duramater was stitched

and blood clot weighing 150 grams was found in the subdural space. (Fig. 3) Subarachnoid haemorrhage was also noted. (Fig. 4) No other ante-mortem injury could be detected.

Discussion:

Any case of death following trauma is treated as unnatural death. In all such cases medico legal autopsy is compulsory in our country. In the present case as no police intimation was given by the nursing home authority, doubts were raised.

Death certificate was issued apprehending the possibility that the body would not be accepted for donation, as desired by the deceased prior to death, if it was considered as unnatural death.

On other hand objections were raised regarding insurance claims as autopsy was not conducted in a case of death following trauma. This ultimately led to the delayed claim for medico-legal autopsy after 16 days by one of the relatives. In the present case embalming had both advantages as well as disadvantages during autopsy. As the body was hardened usual meticulous dissection was hindered.

Preservation of viscera was of little value as toxicological examination by usual methods cannot be performed in formalin fixed organs. [4] However Alunni-Perret [5] and coworkers have detected heroin from bile and liver in embalmed bodies.

Steinhauer [6] has devised a useful test for detection of ketosis in such cadaver.

Detection of carbon monoxide form blood clot in cardiac chambers [7] and alcohol from vitreous of preserved bodies [8, 9] have also been reported. On the other hand as the body was well preserved the injuries could be examined in detail.

Artifacts due to decomposition did not alter the appearance, shape or size of the injuries and the intracranial hemorrhage was also very evident. This would not have been possible had the body been cremated by burning as per Hindu custom. In exhumed bodies decomposition limits the findings in autopsy.

Opeskin [10] reports of a case of unusual injury and highlighted the difficulties that may be encountered in interpretation of injuries. Possibilities of imaging studies by X ray and CT scan in embalmed bodies have also been reported in literature. [11]

Moritz has correctly stated “The mistake of a body to be embalmed before autopsy may be as disastrous as the performance of an incomplete autopsy”. [12] Thus care must be taken in all cases of unnatural deaths to avoid

embalming prior to autopsy; else miscarriage of justice may result.

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Fig. 1: Stitched up Scalp



Fig. 2: Reflected Portion of Scalp Showing Loose Segment of Bone with Burr Hole

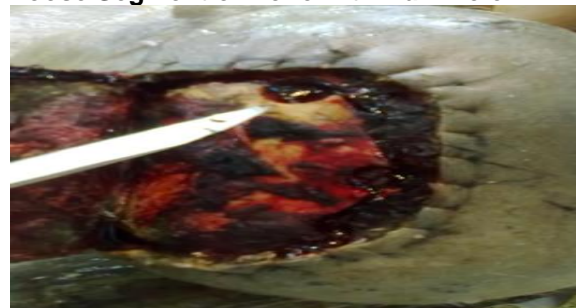


Fig. 3: SDH & SAH

