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# Autopsy on embalmed body: A case report and discussion of Medico- legal issues

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ABSTRACT

A 71 year old female suffering from chronic renal disease with deteriorating renal function was admitted in a private hospital, but she died during the course of treatment. Her son got away without paying the bill due to financial constraints. The body was embalmed byhospital authorities and kept for few days and later medico legal report was made. Police conducted inquest as the body was unclaimed and autopsy was conducted. In this paper, we have discussed the medico-legal and ethical issues related to a case of autopsy on an embalmed body.

**Keywords:** Embalming; Post mortem examination; Medico -legal; Ethical issues

## Introduction

Embalming, one of the humankind's longest practiced arts, is a means of artificially preserving the dead human body (1). Public transportation of the dead body to distant places, anticipating delay in funeral, future dissection/teaching purposes, and preservation of the body form of important personalities for public viewing are some of the important indications for embalming. Embalming can be done on autopsied as well as non-autopsied bodies, though the former requires a more specific approach in terms of body preparation (1). Embalming can be done on both MLC and Non MLC bodies as the case may be. In normal circumstances, embalming should not precede autopsy as it can destroy vital medico-legal evidences. We here report a case and discuss the medico-legal and ethical issues related to a case, where embalming was done prior to medico- legal autopsy.

## Case history

A 71 years old female, a known case of chronic renal disease, dilated cardiomyopathy and chronic obstructive pulmonary disease was admitted in a private hospital in altered sensorium. She was immediately shifted to intensive care unit for ventilator support. She died during the course of treatment after twenty one days.Her medical bill piles up in due course and her kin disappeared from hospital. The hospital authorities waited her kin to come and pay the bill. The police was informed after three days regarding the lying of dead body in the mortuary there was no response of from the mobile phone number given by the relatives of the patient. After nine days of her death embalming was done at a government embalming center, at the behest of authorities of private hospital in lieu of non-claimant of the body and to prevent the body from putrefaction. A medico-legal report was made after eight days of embalming. However, her relatives did not turn up and Police initiated inquest proceedings and post mortem examination was conducted at Maulana Azad Medical College after 19 days of her death.

## Autopsy findings

Rigor mortis was passed off from the body. Fixed postmortem lividity was present on back and dependant part of body except pressure points. Smell of formalin was coming out from the body. The skin was corrugated (**Fig.1**). Stitched incised wound (postmortem) of length 12cms was present over right inguinal region. All organs were hardened. Patchy areas of consolidation were present in upper and middle lobe of right lung.Both kidneys were shrunken in size and indistinct cortico-medullary junction. Findings in rest of the organs were unremarkable. Two teeth and sternum was kept for DNA analysis. Death was attributed to septicemia, a natural cause of death.



**Fig. 1.**

## Discussion

A forensic pathologist hardly comes across of any case, in which he/she is asked to perform postmortem examination on an embalmed body. The situation may arise if the body was embalmed before burial and later exhumation and subsequent autopsy is required. Sometimes both autopsy and embalming conducted on a body and later there is allegation of foul play in autopsy. In this situation, the second autopsy may be conducted on the embalmed body. However, cases of medico legal autopsy after embalming are rarely reported in scientific literature. Embalming should not to be done prior to medico legal autopsy because certain findings which could be misinterpreted by the forensic pathologist and may destroy the medico-legal evidences (1). Embalming alters the colour and consistency the body tissues and organ, sometimes making it difficult to differentiate any injury or disease (1). Embalming incisions and puncture wound may be mistaken for nonexistent ante mortem incised and stab wounds. Skin bruises may be accentuated due to force of embalming fluid and perfusion of fixative. During embalming many chemicals are introduced to the body, hence if later toxicological analysis of viscera conducted there could be problem in differentiation and report of false positive cases. Detection of certain poisons especially alkaloids and organic poisons will be difficult (2). It becomes extremely difficult to analyze the viscera for the heavy metal poisoning (1). Embalming prior to medico-legal autopsy may invite charge of destruction of evidence and will consider under section 201 IPC (1).

In this case, non claimant of body was the reason for making a medico legal case and later inquest was done by the police. The cause of death was chronic renal disease and its complications which was a natural cause of death. A death certificate was already issued by the treating doctor and on that basis embalming was also done. There was no ambiguity regarding cause of death and no foul play suspected. According to Delhi Anatomy Act 1953 (5), the hospital authority can utilizean unclaimed body(a person who dies in hospital, prison or public places, which has not been claimed by any of his near relatives or personal friends within the prescribed timeline of 48 hours) for the purpose of conducting anatomical examination and dissection or other similar purpose. The body can be cremated by the hospital authorities if not required for academic purpose. Only when there is any doubt regarding the cause of death or when for any reason the authorized officer considers it expedient so to do, he shall forward the unclaimed body to the police officer referred to in section 174 of the Code of Criminal Procedure, 1898 (Central Act V of 1898)(3,4 and 5).In this case, police waited for twenty two days, in the hope of that they will find near relative/personal friend.

In case of unclaimed dead body lying in the hospital, where death has occurred due to natural cause, the hospital authority should send telegraphic messages to the available addresses. If the dead body is unclaimed after 72 hours, it is legally authorized to dispose of the dead body. In view of the above, the dead body is declared unclaimed for the purposes of organ retrieval after 48 hours as per the Transplantation of Human Organs Act 1994 (Act No. 42 of 1994), (6). As per the Police Manual the dead body is declared unclaimed only after 72 hours (6). Therefore, these two provisions when read together can be so interpreted that the organ can be retrieved 48 hours but the body is not to be disposed of before 72 hours. When all efforts fail and it is established that no one is likely to claim the dead body, then only a body can be declared as unclaimed and organs can be retrieved as per the Human Organ Transplantation Act, 1994 (7).

In our case, only because the body was not claimed identified a medico-legal autopsy was conducted after 19 days.The sole reason for getting autopsy done was to keep DNA samples for identification.The Delhi Anatomy Act 1953 says that, hospital authorities should inform the authorized officer without any undue delay. In this case police was informed about non claimant of her body after three days of death. Police could not trace the address the deceased. In the meantime body was kept lying in mortuary and embalming got done by the hospital authorities on ninth day. It appears due to lack of knowledge and over enthusiasm on hospital administration was responsible for the embalming. When the deceased admitted the hospital, it was not a MLC case and till her death it remains non MLC case. But after 16 days of her death, medico legal report was prepared. Death certificate was already issued by the hospital authority; hence certification about the cause of death was not a problem at all even before autopsy. Identity of the victim, if at all an issue, would have been resolved as the photographs were already taken by the police officials.

In addition to the specific issues discussed above, if we talk in general, there is difficulty in doing autopsy on an embalmed because of fumes of the formalin make autopsy hall obnoxious. Also, there may problem in DNA fingerprinting as the tissues were stained with formalin which will denatured the protein. Only small molecular weight genomic DNA (5µg) can be recovered from formalin fixed tissues. These fixed tissues cannot be utilized for DNA typing unless short sequences are amplified PCR techniques. (8)

## Conclusion

A rare case of Postmortem on an embalmed body is presented and its autopsy findings and medico legal aspects discussed.

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