



CAUSE AND MANNER OF DEATHS IN MEDICOLEGAL AUTOPSIES IN A TERTIARY CARE CENTER: A RETROSPECTIVE STUDY

Forensic Medicine

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ABSTRACT

The word Autopsy is formed from two Greek words, Autos and Optos. The meaning of the word Autos is self and the word Optos is seen. Thus, autopsy means seeing of self. It is also commonly known as post-mortem examination. An autopsy is of two types: Medico legal Autopsy/Forensic Autopsy & Histopathological Autopsy/Clinical Autopsy. Our focus here would be upon Medico legal autopsies conducted by me in my tenure of 3 years in my M.D. In this study I have categorized cases (autopsies) based on the type of death weather it was Natural or Unnatural. Further classifying manner of death under each category. It can be concluded that Most of the deaths were of natural manner mainly involving lung pathology and under unnatural type most prevalent cause of death was -Road Traffic Accident.

KEYWORDS

Natural- Unnatural, Manner of Death, Lung Pathology, Autopsy

INTRODUCTION

An autopsy examination, also known as a post-mortem examination, is a thorough medical investigation performed on a deceased individual to determine the cause of death, evaluate any disease or injury, and gather evidence for legal purposes if necessary. Here are the key aspects involved in an autopsy:

Types of Autopsies:

- 1.) Clinical Autopsy: Conducted primarily for medical research and education, often to understand diseases and improve treatment protocols.
- 2.) Forensic Autopsy: Performed when the death is suspicious or involves criminal activity, often required by law.

Steps Involved in an Autopsy

- 1.) External Examination: The body is examined for identifying marks, injuries, or other notable features. This includes documenting the condition of the body and collecting evidence like clothing and personal items.
- 2.) Internal Examination:
 - A) Dissection: The body is opened to examine the internal organs. This usually involves the thoracic and abdominal cavities.
 - B) Organ Examination: Each organ is inspected for abnormalities, diseases, or signs of trauma. Tissues may be sampled for histopathological analysis.
- 3.) Toxicology Testing: Samples (blood, urine, tissues) are tested for the presence of drugs, alcohol, or other toxic substances.
- 4.) Documentation: Detailed notes and photographs are taken throughout the process to document findings. This information is compiled into a final report.
- 5.) Final Report: The findings are summarized, and a cause of death is determined, which may include factors like natural causes, accidents, homicide, or suicide.

Importance of Autopsies:

- Understanding Diseases: Helps improve medical knowledge and treatments.
- Legal Clarity: Assists in investigations to clarify the circumstances of a death.
- Family Closure: Provides answers to families regarding the cause of death.

METHODOLOGY

Our focus here would be upon Medico legal autopsies conducted by me in a span of 36 months in

- 1) The mortuary of MAMC associated with Lok Nayak Hospital, Institute from where I am pursuing my M.D.
- 2) Sabzi Madi Mortuary associated with Aruna Asaf Ali Hospital, Delhi (As a part of my District Residency Program)
- 3) Mortuary Of Rao Tula Ram Memorial Hospital, Delhi (As a part of my District Residency Program)

In this study I have categorized cases (autopsies) based on the type of

death weather it was Natural or Unnatural. Further classifying manner of death under each category

DATA COLLECTION

A large number of my subjects were formed by

- (1) Deaths in central district of Delhi as the main 6 Police Stations which are covered by our mortuary are: I.P. Estate, Hauz Quazi, Jama Masjid, Darya Ganj, Chandni Mahal, Kamla Market. Other subject were mainly hospital deaths which were referred to LNH from other parts of India.
- (2) Sabzi Mandi Mortuary: Previously majority of post-mortem cases of Delhi were handled here but at present due to decentralization and subsequent division of work in Delhi, post-mortem examination of whole of the Railway Network (excluding P.P. Shahdara) District North and District East (excluding Kalyan Puri subdivision) areas are conducted in this Mortuary.
- (3) Mortuary associated with Rao Tula Ram Hospital.

RESULT

A total number of 352 autopsies were conducted by me in a span of 36 months. Out of which 203 deaths were Natural and 149 deaths were Unnatural. Further Natural deaths can be broadly classified under 3 categories, namely: Lung Pathology, Heart Pathology, Cerebral Pathology And unnatural deaths could be classified under 8 broad classifications which are as follows: Burn, R.T.A., Fall from height, Poisoning, Building Collapse, Electrocution, Gunshot & Miscellaneous.

Table 1

Natural Deaths-203
Lung Pathology:104
Heart Pathology:85
Cerebral Pathology:14

Table 2

Unnatural Deaths-149
Burn:09
Road Traffic Accidents/ Railway accidents:92
Fall from height:19
Poisoning:06
Building collapse:04
Electrocution:07
Gunshot:02
Miscellaneous:19

CONCLUSION

It can be concluded that Most of the deaths were of

- 1) Natural manner which formed 57.7% of total autopsies.
- 2) Maximum number of deaths of natural type were due to lung pathology which formed 51.2% of total natural deaths.
- 3) Under unnatural type most prevalent cause of death was -Road Traffic/ Railway Accident. Which formed 61.7% of total unnatural type deaths.

REFERENCES

- [1] Cordner SM. Deciding the cause of death after necropsy. *Lancet*. 1993 Jun 05;341(8858):1458-60.
- [2] Pollanen MS. Deciding the cause of death after autopsy--revisited. *J Clin Forensic Med*. 2005 Jun;12(3):113-21. [PubMed]
- [3] Kotabagi RB, Charati SC, Jayachandar D. Clinical Autopsy vs Medicolegal Autopsy. *Med J Armed Forces India*. 2005 Jul;61(3):258-63.
- [4] Banwari M. An erroneous opinion on a cause of death in a forensic autopsy: a case report. *Afr Health Sci*. 2017 Dec;17(4):1246-1249.
- [5] Essentials of Forensic Medicine & Toxicology by S. Chand
- [6] The Essentials of Forensic Medicine & Toxicology by K.S. Narayan Reddy & O.P. Murty