

Post-Mortem Examination Practice in India: Evolution, Current Trends, and Future Scope

Editorial

Pragnesh Parmar*

Additional Professor and HOD, Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences (AIIMS), Bibinagar, Hyderabad, Telangana, India.

Introduction

Post-mortem examinations, commonly known as autopsies, play a crucial role in unraveling the mysteries surrounding a person's death. In India, the practice of post-mortem examinations has a long history that has evolved over time to cater to the needs of the justice system, medical research, and public health. This article explores the evolution of post-mortem examination practices in India, its current trends, and the potential future scope in light of advancements in technology and medical knowledge.

Evolution of Post-Mortem Examination in India

The roots of post-mortem examinations in India can be traced back to ancient times when traditional methods were employed to determine the cause of death. The concept of 'antyeshti' or the last rite, mentioned in ancient texts like the Vedas, often involved a careful observation of the deceased body to ascertain the cause of death and decide the eligibility for various burial or cremation rituals in dignified manner [1].

With the advent of the British colonial era, modern medical practices, including post-mortem examinations, were introduced in India. During this period, the practice of post-mortems gained momentum as a means of understanding disease patterns and mortality trends. The British legal system also recognized post-mortems as valuable tools to investigate suspicious deaths, leading to the formalization of the practice. System of inquest by police officers or magistrate and autopsy by medical doctor is current practice in India [2].

Current Trends in Post-Mortem Examination Practice

In contemporary India, post-mortem examinations are conducted for various purposes, including:

Forensic Investigations: Post-mortems remain an essential tool

in the legal system to determine the cause of death in cases of homicides, accidents, suicides, or suspicious deaths. Medical doctor carefully examine the body, collect evidence [3], and provide crucial insights that aid law enforcement agencies and the judicial process.

Medical Research: Post-mortem examinations are vital for medical research and advancing scientific knowledge. They offer an opportunity to study disease pathologies, understand new illnesses, and improve medical treatments and interventions.

Public Health Surveillance: Post-mortems help in identifying emerging infectious diseases and unusual health trends, enabling public health authorities to respond promptly to potential epidemics or outbreaks.

Clinical Audits: Hospitals and medical institutions conduct post-mortems as part of clinical audits to assess the quality of medical care provided to a deceased patient. These audits offer valuable feedback to medical practitioners and help improve healthcare practices.

Challenges in Post-Mortem Examination Practice

Despite its significance, the practice of post-mortem examinations in India faces several challenges:

Lack of Infrastructure: Many regions in India lack adequate infrastructure, forensic facilities, and trained personnel, hindering the quality and efficiency of post-mortem examinations.

Cultural and Religious Sensitivities: India is a diverse nation with various cultural and religious beliefs regarding handling deceased bodies [4]. Balancing the requirements of scientific inquiry with cultural sensitivities can be challenging.

Overburden of Cases: The high number of deaths and limited resources lead to overburden of post-mortem cases, delaying

*Corresponding Author:

Pragnesh Parmar,
Additional Professor and HOD, Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences (AIIMS), Bibinagar, Hyderabad, Telangana, India.
E-mail: drprag@gmail.com

Received: August 04, 2023

Published: September 04, 2023

Citation: Pragnesh Parmar. Post-Mortem Examination Practice in India: Evolution, Current Trends, and Future Scope. *Int J Forensic Sci Pathol.* 2023;10(1e):1-2.

Copyright: Pragnesh Parmar©2023. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

justice and research opportunities.

Limited Specialization: Few medical professionals specialize in forensic medicine, leading to a shortage of qualified experts in the field.

Future Scope and Technological Advancements

Despite the challenges, several promising developments offer a positive outlook for the future of post-mortem examination practice in India:

Advancements in Forensic Techniques: Emerging technologies, such as DNA analysis, toxicology screening, and imaging methods, have significantly improved the accuracy and speed of forensic investigations.

Digital Autopsy: The introduction of digital autopsy or virtual autopsy [5], which employs non-invasive imaging techniques like CT scans and MRI, reduces the need for traditional invasive autopsies while providing equally accurate results.

Telemedicine in Forensics: Telemedicine is enabling experts to remotely review cases, reducing the burden on local facilities and improving the reach of specialized forensic expertise.

Training and Education: There is a growing recognition of the importance of forensic medicine, leading to improved training and education programs to produce more skilled forensic experts.

Public Awareness: Increased public awareness and understanding of the importance of post-mortem examinations are vital for overcoming cultural stigmas and improving the willingness to autopsies for the greater benefit of society. Social media [6], e learning [7], google sites [8], etc. helped to create awareness in Covid era for ethical practice [9, 10].

Conclusion

The practice of post-mortem examination in India has come a long way, evolving from traditional practices to becoming an essential tool for forensic investigation, medical research, and public health. Despite facing challenges, advancements in technology, telemedicine, and increasing awareness offer significant potential for growth and improvement in the field. With continued efforts to overcome existing obstacles, the future scope for post-mortem examination practice in India appears promising, ensuring justice, advancing medical knowledge, and enhancing public health outcomes.

References

- [1]. Parmar P, Rathod G. Humanitarian Forensics: Perspective to Dignified Management of Dead Body. *IAIM*. 2021 Feb 1;8(2):97-99.
- [2]. Parmar PB, Rathod GB, Bansal P, Yadukul S, Bansal AK. Utility of inquest and medico-legal autopsy in community deaths at tertiary care hospital of India. *J Family Med Prim Care*. 2022 May;11(5):2090-2093. PubMed PMID: 35800523.
- [3]. Pragnesh B Parmar. Evidence Based Forensic Medicine: Roadmap to enhance teaching horizon. *Forensic Science and Addiction Research*. 2019;4(5):1-2.
- [4]. Parmar P, Rathod GB. Study of knowledge, attitude and perception regarding medico-legal autopsy in general population. *Int J Med Pharm Sci*. 2013 Feb;3(6):1-6.
- [5]. Yadukul S, Parmar P, Srirambhatla A, Arora AJ, Mada P, Reddy D. Virtual autopsy in India: The need of the hour. *J Forensic Med Toxicol*. 2022;39(2):4-7.
- [6]. Parmar P, Rathod G. Current trends of social medial in medical education. *IAIM*. 2021;8(3):55-6.
- [7]. Rathod G, Parmar P. E-learning in medical education during COVID era. *D Y Patil J Health Sci*. 2021 Jan 1;9(1):39-40.
- [8]. Parmar P, Patond S, Rathod G, Ninave S. Google Site as a Tool for Teaching Undergraduate Students in Forensic Medicine. *Indian J Med Forensic Med Toxicol*. 2020 Oct 1;14(4).
- [9]. Bansal AK, Parmar P, Rathod G. Ethical principles in Hospital settings-perceptions of intern doctors of tertiary care Hospital. *J Forensic Med Toxicol*. 2020;37(2):77-9.
- [10]. Bansal AK, Parmar PB, Bansal P, Patel R, Barai PH, Thomas E. Ethical climate and its effect in teaching hospital: A vision from 3rd eye. *JIAFM*. 2019;41(1):45-9.