

Knowledge, Attitude and Awareness of Medical Students towards Medico-Legal Autopsy in Sangli, Maharashtra

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Abstract

For centuries, autopsy has been instrumental in establishing the cause of death both in clinical and forensic cases. Even though it helps in arriving at a decision regarding the cause of death and many other things, its use is declining recently, which should be a cause of concern. With this background, the present study has been carried out in January 2020 on 150 medical students of 2nd year MBBS by using set of questionnaires, to assess their knowledge and attitude towards autopsy at department of Forensic Medicine and Toxicology at BVDU & MC, Sangli, Maharashtra. This study shows the students had a reasonable knowledge and good attitude towards medico-legal autopsy. Majority of the students agreed that need of autopsy in all unnatural, sudden, unexpected and suspicious death is mandatory and collection of viscera for histo-pathological and toxicological analysis is useful. Majority of the students think that autopsy helps in solving crimes and gives information to police. Most of the study population shows interest in attending and performing a greater number of autopsies. Majority of the students agreed that post mortem examination is useful in medical education. Majority of the study population says that autopsy is disrespect to human body. Most of the study population is not aware of virtual autopsy.

Keywords: Medico-legal autopsy, Medical students, Medical education and Forensic medicine.

Introduction

Autopsy in Greek means “to see with one’s own eyes”. Medico-legal autopsy is a scientific study of a dead body and is categorized into clinical and medico-legal autopsies. It plays a crucial role in finding out the cause and the time of death, possible medico-legal issues surrounding death, providing data on disease and injury and also aiding in administration of justice. Doctors with poor knowledge in autopsy may result in injustice¹. The

use of autopsy in medical education has been declining; just as autopsy rate has been falling worldwide this is further worsened by authorities deterring medical students from attending autopsy sections in some areas².

In India, according to the curriculum of the Medical Council of India, a medical student should witness a minimum number of medico legal autopsies in the second year so that they can observe and interpret various findings³. It is only when students attend an autopsy section, they can appreciate the large number of pathological conditions in different patients. An intern is supposed to acquire the skill of doing a medico-legal autopsy. Thus, every medical graduate is presumed to be capable of doing a medico-legal autopsy after registering as medical practitioner⁴. The knowledge and attitude of medical students towards forensic autopsy is a significant factor that influences

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the quality of autopsy reports⁵. Therefore present study was conducted to ascertain the knowledge, attitude and awareness of medical students towards medico-legal autopsy examination⁶.

Materials and Method

To assess the knowledge and attitude of medical students towards medico-legal autopsy, a cross sectional study was conducted in January 2020 on 150 medical students of 2nd year MBBS at department of Forensic Medicine and Toxicology at BV DU & MC, Sangli, Maharashtra. Before starting the study, written approval

from the institutional ethics committee was obtained. The questionnaires consisting of 16 questions related to the knowledge and attitude towards medico-legal autopsy were distributed to the aforementioned participants. Medical students of 2nd year MBBS who refused to participate or were not available on second visit were excluded from the study.

Results

Total 150 medical students of 2nd year MBBS were selected for this present study and the following observations are made.

Questionnaires:

1. Medico- legal post-mortem examination is mandatory in all unnatural, sudden, unexpected and suspicious death	a. Yes (n=145, 96.66%) b. No (n=5, 3.3%)
2. Is there any utility of taking out of viscera for histo-pathological examination and toxicological analysis in medico legal autopsy?	a. Yes (n=137, 91.33%) b. No (n=13, 8.66%)
3. Post-mortem examination	a. Done to know the cause of death (n=145, 96.66%) b. Harassment to the relative of the deceased (n=3, 2.0%) c. Mere legal formality (n=2, 1.33%)
4. Do you think that autopsy helps in solving crimes and give important information to police?	a. Yes (n=148, 98.66%) b. No (n=2, 1.33%)
5. Student should attend more post-mortem examination?	a. Yes (n=142, 94.6%) b. No (n=8, 5.4%)
6. Wished to have post-mortem examination on self/relative when required?	a. Yes (n=114, 76%) b. No (n=36, 24%)
7. Given a chance would you choose not to watch post-mortem examination at all?	a. Yes (n=140, 93.33%) b. No (n=10, 6.66%)
8. The utility of post-mortem examination in medical education?	a. Yes (n=144, 96.66%) b. No (n=5, 3.33%)
9. Whether doing post-mortem examination causes disfigurement of the body?	a. Yes (n=80, 53.33%) b. No (n=70, 46.66%)
10. Post-mortem examination is disrespect to human body?	a. Yes (n=140, 93 %) b. No (n=10, 7%)
11. Should medical students actively participate in performing autopsies?	a. Yes (n=139, 92.66%) b. No (n=11, 7.33%)
12. Can relatives request the doctors for doing autopsy n without police inquest report?	a. Yes (n=140, 93.33%) b. No (n=10, 6.66%)
13. Do you think body can be handed over to the relatives without post-mortem examination if the cause of death is known in a MLC Cases?	a. Yes (n=55, 36.33%) b. No(n=95, 63.33%)
14. Before conducting the medico legal autopsy following is necessary.	a. Consent of relatives is must (n=20, 13.33%) b. Inquest report from investing officer is must (n=63, 42%) c. Request letter from investigating officer (n=25, 16.66%) d. None of the above (n=42, 28%)

15. During medico legal autopsy following procedure should be followed	a. External examination only (n=142, 94.66%)
	b. Internal examination only (n=3, 2%)
	c. Both external and internal examination (n=5, 3.33%)
16. Virtual autopsy is a new form of post-mortem examination?	a. Yes (n=48, 32%) b. No (n=13, 8.66%) c. Don't know (n=89, 59.33%)

Majority of the study population (96.66%) agreed that need of autopsy in all unnatural, sudden, unexpected and suspicious death is mandatory. Out of 150 students 137(91.33%) students are aware of collection of viscera for histo-pathological and toxicological analysis is useful. Majority of the study population 145(96.66%) says post mortem examination is done to know the cause of death, where as 2% of the study population says it is a harassment to the relative of the deceased and 1.33% of the study population thinks that it is a mere legal formality. It is also observed that 98.66% of study population agreed that autopsy helps in solving crimes and gives important information to police.

Majority of the students agreed that they should attend a greater number of autopsies (94.66%) and wished to have post-mortem examination on self/relatives when required. Most of the students (96.66%) say that post-mortem examination is useful in medical education. 80 students (53.33%) think that autopsy causes disfigurement of body and 140 students (93%) think that autopsy is disrespect to human body. Majority of the study population (92.66%) agreed that students should actively participate in performing autopsies.

Most of the study population (93.33%) thinks that no relatives can request the doctor for doing autopsy without police inquest report. Majority of the study population (63.33%) thinks that body cannot be handed over to the relatives without autopsy in medico-legal cases. 13.33% of the study population thinks that consent from relatives is must before conducting autopsy. 42% of the study population thinks inquest is must and 16.66% of study population thinks that request letter from investigating officer is must.

Majority of the study population (94.66%) thinks that only external examination is followed in autopsy, where as 3.2% of study population thinks that only internal examination should be followed and just 2% of study population thinks that both external and internal examinations should be followed during autopsy. Majority of the study population (59.33%) is not aware

of virtual autopsy, where as 32% of study population says virtual autopsy is the new form of post-mortem examination.

Discussion

The medico-legal examination of dead body is instrumental in accurately establishing the cause and manner of death. It plays a crucial role in acquiring medical knowledge, and has been an important part of medical education for centuries. In this present study we have tried to know the knowledge and attitude of medical students towards the medico-legal autopsy.

In the present study it is observed that the knowledge of the necessity of the forensic autopsy in unnatural, sudden unexpected and suspicious death cases and for the utility of using viscera for the histo-pathological and toxicological analysis was present with 96.66% and 91.33% of the medical students respectively. These findings were similar to results of the study conducted by Madhusudhan S⁶ and Murugesha B⁷.

It is also observed that majority of the study population agreed that autopsy will help in solving crimes and give important information to the investigating officer. These findings are similar to the study conducted by Inderjit SB⁸.

In this present study it is also observed that majority of the medical students think that an autopsy is not the harassment to the relatives of the deceased. This observation is in agreement with the study conducted by Ahmad M and others.⁹ But in our study majority of the students are not aware of virtual autopsy as a new form of post mortem examination, this finding is not in agreement with the study conducted by Ahmad M and others⁹.

In this present study we have observed that majority of the study population agreed that postmortem examination is done to know the cause of death. These findings were similar to results of the study conducted by Madhusudhan S⁶.

The results of the present study concluded that majority of the medical students had sufficient knowledge about the procedures and had positive attitude towards observing the autopsies. These findings are similar to the study conducted by Shamshuddin RK and others⁴.

In this present study we have observed that majority of the study population agreed on the importance of autopsy in medical education curriculum and are in support of watching and participating in a greater number of autopsies. These findings are in agreement with the study conducted by Jadeep CJ and others¹⁰. But in our study majority of the students believed that postmortem examination is disrespect to the human body, this finding is not in agreement with the study conducted by Jadeep CJ¹⁰.

Conclusion

To assess the knowledge and attitude of undergraduate medical students towards medico-legal autopsy, a cross sectional study was conducted at BVDU & MC, Sangli, Maharashtra. The findings of this present study show that undergraduate medical students have a reasonable knowledge and positive attitude about medico-legal autopsy. But the knowledge, awareness and positive attitude alone may not be enough for increasing the post-mortem/autopsy as an education tool, unless they acquire the skills required for the procedure as currently, they are not provided with any training during their medical curriculum. Hence, we recommend revising the forensic medicine curriculum and for increased training in the autopsy procedure and other medico-legal issues during their clinical and internship years so that medical students will be able to make rational conclusions in criminal and other medico-legal cases.

Conflict of Interest: Nil

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