Research Article

Epidemiology of Autopsies Conducted in a Rural Medical College

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Abstract: The word “autopsy” means – auto means self and opsy means examination. The word "autopsy" was collected from the Ancient Greek autopsia, "to see for oneself". In this retrospective study, all the cases which are autopsied during the period 1st January 2014 to 31st December 2014 were analyzed at the Department of Forensic Medicine & Toxicology, AIMS, B G Nagar, Karnataka. In the present study road traffic accident cases accounts for maximum number (64 cases). Due to the presence of Bangalore-Mangalore national highway close to medical college, every day we get to see many number of road traffic accident cases. Autopsy has long been regarded as an important tool for confirming the clinical cause of death, education and quality assurance.

Keywords: Autopsy, RTA, Drowning, Poisoning.

INTRODUCTION

The word “autopsy” means – auto means self and opsy means examination. The word "autopsy" was collected from the Ancient Greek autopsia, "to see for oneself" [1].

An autopsy is a post-mortem examination, necropsy, that consists of a thorough examination of a body to determine the cause and manner of death and time since death. In India, it is usually performed by a specialized medical doctor called forensic expert.

There are four main types of autopsies are conducted in India:

- Medico-Legal Autopsy in order to find the cause and manner of death and time since death. They are generally performed as prescribed by applicable law, in cases of violent, suspicious or sudden deaths, deaths without medical assistance or during surgical procedures [2].
- Clinical or Pathological autopsies are performed to diagnose a particular disease [2].
- Anatomical or academic autopsies are carried out by students of anatomy for study purpose only [2].
- Virtual or medical imaging autopsies are performed utilizing imaging technology only, primarily magnetic resonance imaging (MRI) and computed tomography (CT) [3].

The concept of a medico-legal autopsy has been mentioned in the sections 174 and 176 Code of Criminal Procedure (Cr.P.C.) during investigations of a suspected death [4].

Objectives of a Medico-Legal Autopsy

To establish the identity of an unknown body, to ascertain the time since death, cause of death and whether the death was natural or unnatural and if unnatural, whether it was homicidal, suicidal or accidental [5].

In a complete autopsy all body cavities and all organs of the trunk, chest, and head are opened [6]. In all cases, a complete and not a partial examination are more necessary in this country on account of the imperfectness of the preliminary evidence as to the possible cause of death [6, 7].

There is confusion regarding official permission for the performance of post-mortem during evenings or nights. As per the norms, during night conduction of post-mortem is not permitted. A people's representative in the past appealed to the Government in order to extend the hours of conducting autopsy beyond evening in the larger interest of people [8].
MATERIAL AND METHODS
In this retrospective study, all the cases which are autopsied during the period 1st January 2014 to 31st December 2014 were analyzed at the Department of Forensic Medicine & Toxicology, AIMS, B G Nagar, Karnataka.

RESULTS

<table>
<thead>
<tr>
<th>Month</th>
<th>RTA</th>
<th>Poisoning</th>
<th>Hanging</th>
<th>Lightning</th>
<th>Drowning</th>
<th>Natural Death</th>
<th>Snake Bite</th>
<th>Burns</th>
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<td>Sub-Total</td>
<td>64</td>
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Total number of post-mortem done = 130

Statistics of autopsied cases in 2014
- RTA-64 cases
- Natural death – 20 cases
- Poisoning -18 cases
- Drowning – 08 cases
- Hanging – 07 cases
- Burns – 05 cases
- Lightning - 4 cases
- Snake bite – 3 cases and fall – 1 case

DISCUSSION
In the present study road traffic accident cases accounts for maximum number (64 cases). Due to the presence of Bangalore-Mangalore national highway close to medical college, every day we get to see many number of road traffic accident cases.

In 2011, National Highways accounted for 30.1% of the total road accidents and 37.1% of the total number of persons killed in 2011. It has been reported that State Highways accounted for 24.6% of the total accidents and 27.4 % of the total number of persons killed in road accidents in 2011. The total number of accidents that occurred in rural areas (53.5%) was found to be more than that in the urban areas (46.5%), while rural areas had more fatalities (63.4%) than urban areas (36.6 %). More number of persons were injured in rural areas (59.4 %) when compared to urban areas (40.6 %) [9].

In 2012, the month-wise distribution of road accidents has shown that more accidents occurred in the month of May (8.8%) followed by April (8.74%) and January (8.72%). The least number of road accidents were reported to occur in the month of September [10].

Being a rural area death due to poisoning accounts for 18 cases because of easy availability of insecticides for the agriculture purpose.

Organophosphorus compounds have been found to cause most self-poisoning deaths in southern India [11-13]. Farmers form a significant proportion of the population, commonly use organophosphorus compound such as parathion as insecticides [14]. A large number of suicidal cases are encountered due to the easy accessibility or improper handling of these compounds [15, 16]. Acute organophosphorus pesticides consumption are the most important cause of severe toxicity and death worldwide, more than 2,0000 deaths are found in developing countries in each year [17, 18]. The incidence of severe acute organophosphorus pesticide poisoning is very less in developed countries [17].

AIMS College is surrounded by Hemavathi water channels, because of this death due to drowning accounts for 8 cases.

The global burden and death from drowning is found in all economies and regions. Low- and middle-income countries account for 91% of unintentional drowning deaths. It has been found that over half of the world’s drowning occurs in the WHO Western Pacific Region and WHO South-East Asia Region. Drowning death rates are reported to be highest in the WHO African region that is 10-13 times higher than those accounted in the United Kingdom or Germany respectively [19].

CONCLUSION
Autopsy has been regarded as an important tool in order to confirm the clinical cause of death, education and quality assurance. Clinicians’ anxieties have been heightened due to concerns surrounding...
informed consent and the retention of organs in requesting permission to perform an autopsy [20]. From this study it is concluded that medico legal autopsies revealed many findings that are of demographic importance and a continued emphasis on Autopsy is necessary for the benefit of the society.

REFERENCES