Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies ***NLM ID:*** *101716117*

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Index Copernicus value = 85.10

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Assessment of 116 autopsies obtained in Forensics department

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ABSTRACT:

Background: Medico-legal autopsies or forensic or coroner's autopsies seek to find the cause and manner of death and to identify the descendant. The present study was conducted to assess different autopsies obtained in forensic medicine department. **Materials & Methods:** 116 Forensic autopsies obtained were subjected to exhumations, examination of bone remains and inspections of dead bodies at the site of death (without following forensic autopsy). **Results:** Age group 11-20 years had 5 males and 3 females, 21-30 years had 7 males and 5 females, 31-40 years had 18 males and 10 females, 41-50 years had 26 males and 20 females, 51-60 years had 6 males and 7 females and >60 years had 4 males and 5 females. The cause of death was RTA in 26, drowning in 10, burn in 14, poisoning in 12, hanging in 8, assault in 18, natural in 16 and fall in 12. The difference was significant (P< 0.05). **Conclusion:** Most common cause of death in study was road traffic accident, burn and assault.

Key words: Autopsy, burn, Road traffic accident.

Received: 12, January 2021 Accepted: 25 February, 2021

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This article may be cited as: Gupta JK, Sharma A. Assessment of 116 autopsies obtained in Forensics department. J Adv Med Dent Scie Res 2021;9(3):93-96.

INTRODUCTION

An autopsy is a specialized procedure that consists of examination of dead body to find out cause of death, manner of death, time since death and identification.[1] It is conducted by forensic expert. Autopsy is derived from a Greece word autopsia meaning see for yourself.[2] During the last two decades, the number of pathological autopsies has been continuously decreasing. There are many reasons for the decrease, including availability of contemporary, sophisticated diagnostic imaging technologies, refusal of autopsy due to cultural or religious reasons, or certain economic factors.[3]

Medico-legal autopsies or forensic or coroner's autopsies seek to find the cause and manner of death and to identify the descendant. They are generally performed a prescribed by applicable law, in cases of violent, suspicious or sudden deaths without medical assistance or during the surgical procedures.[4] Clinical and pathological autopsies are performed to diagnose a particular disease or for research purpose. They aim to determine, clarify or confirm medical diagnose that remained unknown or unclear prior to the patient's death.[5] Anatomical or academic autopsies are performed by students of anatomic foe study purpose only. Virtual or medical imaging autopsies are performed utilizing imaging technology only primarily magnetic resonance imaging (MRI) and computed tomography (CT).[6] The present study was conducted to assess different autopsies obtained in forensic medicine department.

MATERIALS & METHODS

The present study was conducted among 116 autopsies obtained in the department of forensic medicine department. Approval was obtained before starting the study.

In all autopsies, the reason of death, gender and age group was recorded. Forensic autopsies, exhumations, examination of bone remains and inspections of dead bodies at the site of death (without following forensic autopsy) were analyzed. Results thus obtained were

subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of cases

Age group (years)	Male	Female
11-20	5	3
21-30	7	5
31-40	18	10
41-50	26	20
51-60	6	7
>60	4	5
Total	66	50

Table I, Graph I shows that age group 11-20 years had 5 males and 3 females, 21-30 years had 7 males and 5 females, 31-40 years had 18 males and 10 females, 41-50 years had 26 males and 20 females, 51-60 years had 6 males and 7 females and >60 years had 4 males and 5 females.

Group I Distribution of cases

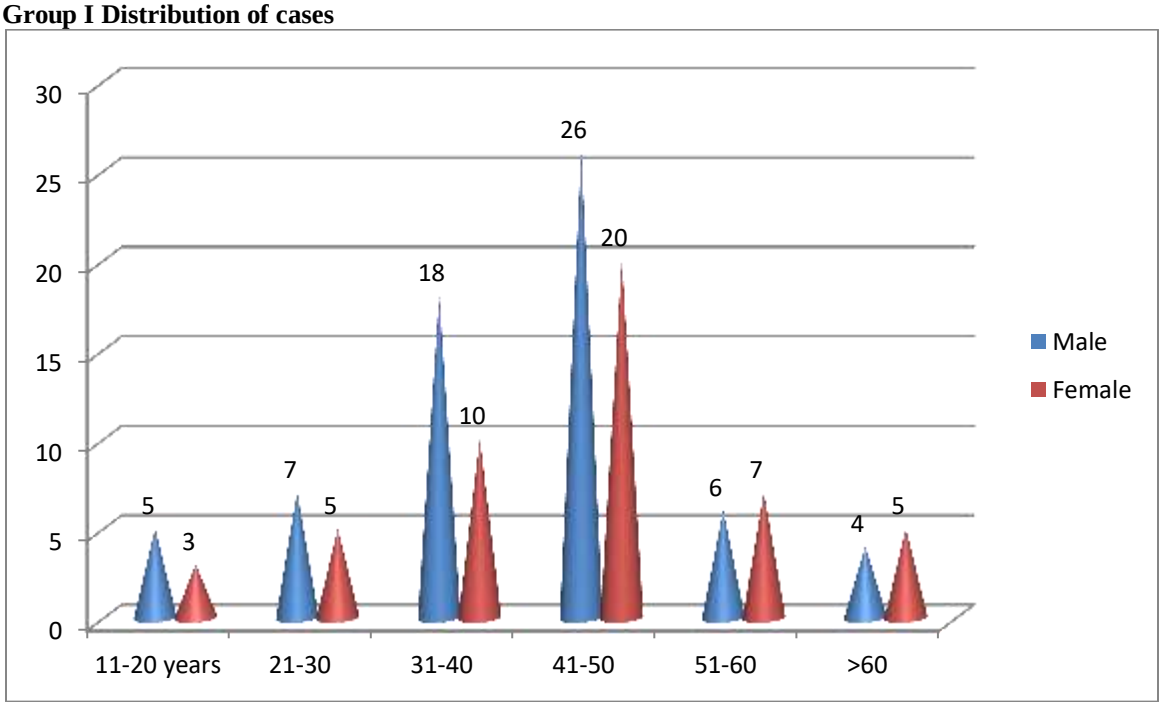
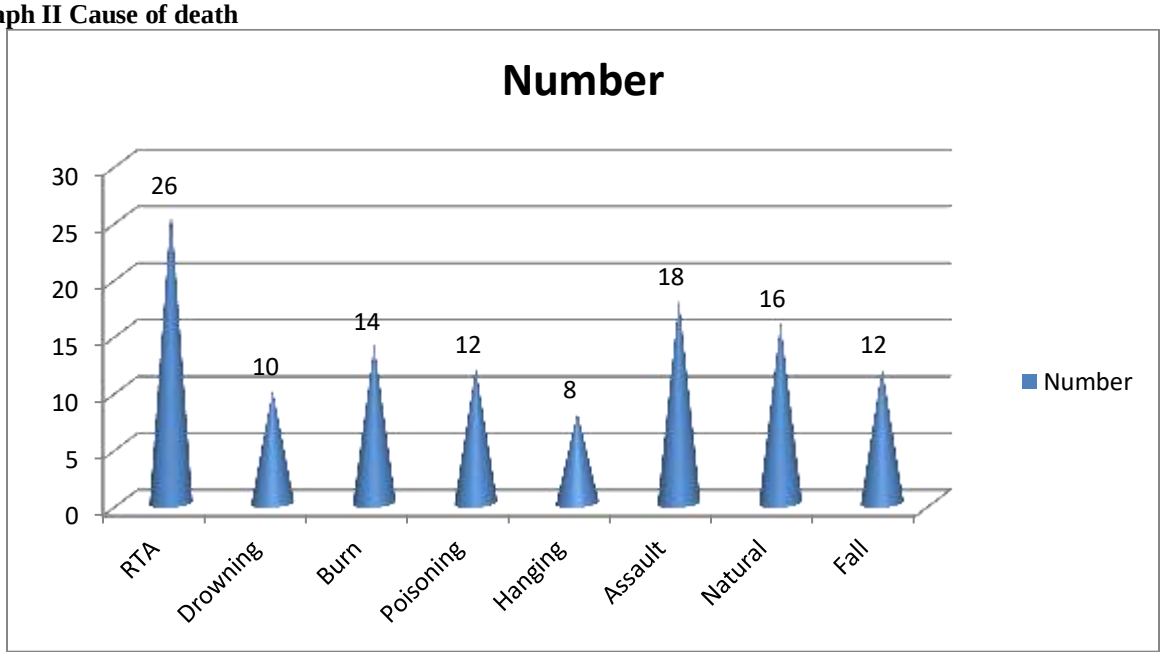


Table II Cause of death

Cause	Number	P value
RTA	26	0.05
Drowning	10	
Burn	14	
Poisoning	12	
Hanging	8	
Assault	18	
Natural	16	
Fall	12	

Table II, Graph II shows that cause of death was RTA in 26, drowning in 10, burn in 14, poisoning in 12, hanging in 8, assault in 18, natural in 16 and fall in 12. The difference was significant (P< 0.05).

Graph II Cause of death



DISCUSSION

The most important task of a forensic autopsy is to identify the cause of death and confirm or exclude violent death. This information is particularly important for investigating each suspicious case.[7] Despite the declining rate of autopsies, the procedure still have is proponents, some have advocated that non-forensic should be left with relics of the past since there are more sophisticated ways at arriving diagnosis.[8] The detractors question the risk and cost effectiveness of the autopsy.[9] The proponent believes, that autopsy has a place in establishing public trust in medicine and remains a focal point for the integration of medical knowledge.[10]

In present study, age group 11-20 years had 5 males and 3 females, 21-30 years had 7 males and 5 females, 31-40 years had 18 males and 10 females, 41-50 years had 26 males and 20 females, 51-60 years had 6 males and 7 females and >60 years had 4 males and 5 females. Dekov et al[11] in their study a total of 976 cases were analyzed. The deaths due to diseases comprised 35% of all forensic autopsies. The most common cause of violent death was damage by mechanical factors (53%), followed by asphyxia (24.7%). The most common mechanical factor was vehicle crash trauma, followed by falling (22.5%). Accidents were the most common cause of death 62%, followed by suicides (31%) and homicides 7%. Fifty-nine percent of the suicides were by hanging. The preliminary analyses of the studied data lead to several conclusions. The number of forensic autopsies was found to be progressively decreasing, but the road traffic death rate remained unchanged. Most of the forensic autopsies were performed in July. The highest death rates by age was observed in the age group between 51 and 60 years, with predominance of males over females (3.3 males: 1 females).

We found that cause of death was RTA in 26, drowning in 10, burn in 14, poisoning in 12, hanging in 8, assault in 18, natural in 16 and fall in 12. Malami SA et al[12], a total number of 360 autopsies were done during the study period and 155 were medico-legal autopsies representing 43%. 232 were male, 118 female with a male to female ratio 2:1. Homicide death 56 (36.1%), RTA 36 (23.2%), sudden death 32 (20.6%), perioperative death 8 (5.2%), anaesthetic death 7 (4.5%), drowning 5 (3.2%), institutional deaths 4 (2.1%), death in police custody 3 (1.9%), burns 3(1.9%) and electrocution 1(0.6%) were seen. Age distribution of medico-legal autopsy was between 10-100 years. The study concluded that homicidal death is the common indication of medico-legal autopsies in the study and is beneficial to law enforcement and jurisprudence, medical education and legal implication of patient management.

In a study it was found that the large number of forensic autopsies per year in Bulgaria is related to the number of vehicular accident fatalities and current Bulgarian legislation. Accidents (including vehicle, occupational and domestic accidents) were found to be the leading cause of violent death, representing 62% of all cases of violent death for the period studied. Suicides were the second most common cause of violent death observed in 31% of the cases, while homicides represented accounted for only 7% of all forensic autopsies during this period.[13] Lawrence EO[14]found that there were 421 cases of medico-legal autopsies giving an annual ratio of 23 per annum. 313 (73%) were males and 108 (26%)

female giving a male to female ratio of 3:1. Accidental death 210, sudden death 44, homicidal death 35, anaesthetic death 50, institutional death 44 and death in police custody 38 was common one.

CONCLUSION

Authors found that most common cause of death in study was road traffic accident, burn and assault.

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