

## An Analysis of Medico Legal Cases at a Tertiary Care Hospital, Kakinada

Dr. Dake Rajesh\*

Emergency Physician, Apollo Hospitals – Kakinada, #13-1-3, Main Road, Surya Rao Peta, Kakinada, Andhra Pradesh 533001, India

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\*Corresponding author: Dr. Dake Rajesh

### Abstract

### Original Research Article

Medico-legal cases are an integral part of medical practice that is frequently encountered by medical officers working in Emergency department. Hence the present study was conducted to analyse different categories of medico legal cases, characteristics of the victims and frequency and their pattern at emergency department of tertiary care hospital, Kakinada to highlight the vulnerable gender, age, residence and the cause. It is a record based cross sectional study in which all the MLC cases registered in MLC record book during a period of 3 years (Jan 2016 – Dec 2018) were included. Cases found non medico-legal were excluded. Findings were expressed in numbers and percentages. Total cases were 1050, of which 815 (77.62%) were males and 235 (22.38%) were females. Maximum cases were from the age group of 21-40 years i.e., 502 (47.8%). 793 (75.5%) were residents of urban area. Most of the MLC's registered were due to road traffic accidents - RTA (73.9%) followed by Industrial injuries (9.6%), fall (6%), burn (4.28%), assault (3.4%), poisoning (2.19%), & others (0.5%). Maximum cases were from Urban 793 (75.5%) and Rural 257 (24.5 %). The present study shows most of the victims are males in the age group of 20-40 years and RTAs accounts the major part of MLCs. By giving proper education, training of safety standards and awareness among public the frequency of these cases can be reduced. Strict laws should be enforced to reduce the road traffic accidents. The doctors who are involved in handling MLCs to be more trained.

**Keywords:** Medico-legal cases, Assault, Road traffic accidents, Age, Industrial injuries.

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## INTRODUCTION

A doctor has ethical and legal obligations, and he needs to abide by the laws of the land while discharging his duties. In medical practice, most of the doctors working in Emergency department would come across which at the time or subsequently, would be called a "medico legal case" (MLC). Medical law is the branch of law which concerns the prerogatives and responsibilities of medical professionals and the rights of the patient. It should not be confused with medical jurisprudence, which is a branch of medicine, rather than a branch of law. Medico Legal case is a medical case with legal implications for the attending doctor where the attending doctor, after eliciting history and examining the patient, thinks that some investigation by law enforcement agencies is essential [1]. It may be a legal case requiring medical expertise when brought by the police for examination. It can also be defined as a case of injury or ailment, etc., in which investigations by the law-enforcing agencies are essential to fix the responsibility regarding the causation of the said injury or ailment [2]. Cases that are to be treated as medico legal are [3]: (a) All cases of injuries and burns - the circumstances of which suggest commission of an

offense by somebody (irrespective of suspicion of foul play); (b) all vehicular, factory, or other unnatural accident cases specially when there is a likelihood of patient's death or grievous hurt; (c) cases of suspected or evident sexual assault; (d) cases of suspected or evident criminal abortion; (e) cases of unconsciousness where its cause is not natural or not clear; (f) all cases of suspected or evident poisoning or intoxication; (g) cases referred from court or otherwise for age estimation; (h) cases brought dead with improper history creating suspicion of an offense; (i) cases of suspected self-infliction of injuries or attempted suicide; (j) any other case not falling under the above categories but has legal implications. The number and nature of MLCs reported in a hospital depends on the nature of the roads, socio economic factors and cultural diversity of the people residing in that area. Identifying the pattern and age-sex distribution of MLCs reported in a hospital is important for administrators, social workers and NGOs to devise policies to reduce the frequency of these events.

## OBJECTIVE

To analyze the age-sex distribution and the pattern of medico legal cases attending in a tertiary care hospital - Kakinada

## MATERIALS AND METHODS

**Research Instrument:** It is a retrospective hospital Medical record based observational study.

**Sample Design:** 1050 cases categorised as MLC were studied from January 2016 to December 2018

**Data Collection:** Data was collected in terms of age, sex and type of incident mentioned in the medical records. The profile of these cases were studied by grouping the total number of such cases during period January 2016 to December 2018 under following categories : Road traffic accidents, Industrial injuries, Assault, Burns, Falls, Poisoning and others.

**Inclusion Criteria:** All cases which were registered under medico legal cases were included in this study.

**Exclusion Criteria:** Non Medico legal cases were excluded.

**Statistical Analysis:** The data was analysed by statistical test like one way repeated measures ANOVA test

## RESULTS

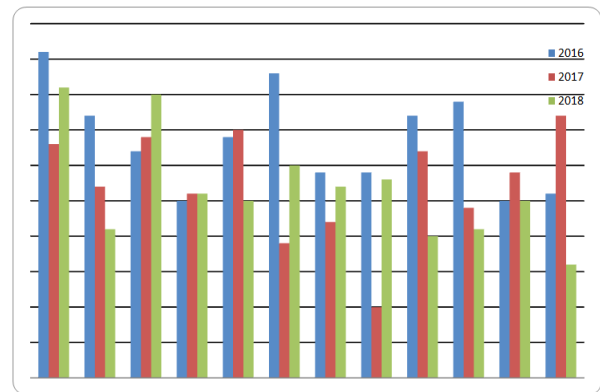
The results of one way ANOVA show that the F-ratio value is 3.4527. The obtained F Test value is greater than critical value. The p-value obtained is .049645 which is less than 0.05. Hence, we reject null hypothesis and accept alternative hypothesis. The test is significant at  $p < .05$ .

## DISCUSSION

Data which was collected in terms of age, sex and type of incident as mentioned in the medical records during period January 2016 to December 2018 were analysed. Table-1 and Graph-1 shows no of cases registered during the period of study i.e., Jan 2016 to Dec 2018 and their trends according to the month.

Table-1

	2016	2017	2018
JAN	46	33	41
FEB	37	27	21
MAR	32	34	40
APR	25	26	26
MAY	34	35	25
JUN	43	19	30
JUL	29	22	27
AUG	29	10	28
SEP	37	32	20
OCT	39	24	21
NOV	25	29	25
DEC	26	37	16
	402	328	320

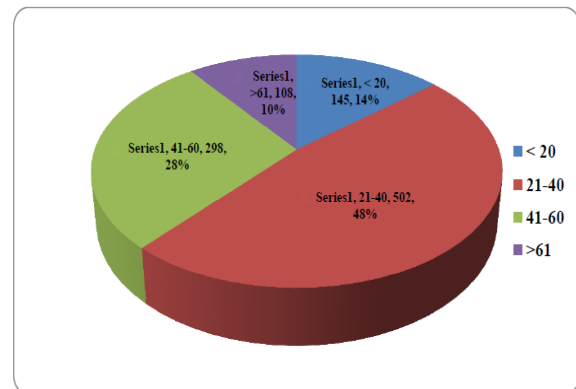


Graph-1

Table-2 and Graph-2 shows distribution of cases according to age according to the following criteria: Age < 20 yrs, 21-40 yrs, 41-60 yrs and > 60 yrs.

Table-2:

	2016	2017	2018
< 20	48	47	50
21-40	195	162	145
41-60	105	92	98
>61	54	27	27

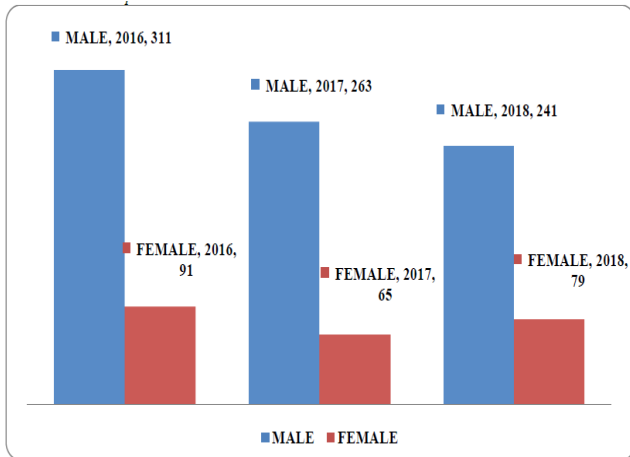


Graph-2

Table-3 and Graph-3 shows distribution of cases according to Gender

**Table-3**

	2016	2017	2018
<b>MALE</b>	311	263	241
<b>FEMALE</b>	91	65	79

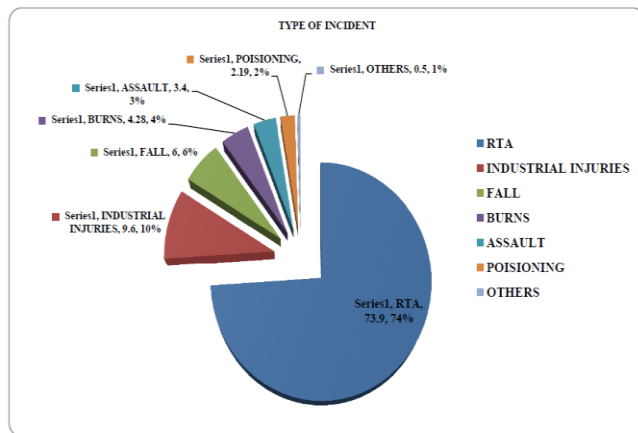


**Graph-3**

Table-4 and Graph-4 shows distribution of cases according to Type of incident

**Table-4**

	2016	2017	2018
<b>RTA</b>	297	232	247
<b>ASSAULT</b>	15	11	10
<b>FALL</b>	29	18	16
<b>POISONING</b>	9	8	6
<b>INDUSTRIAL INJURIES</b>	42	29	30
<b>BURNS</b>	10	26	9
<b>OTHERS</b>	0	4	2



**Graph-4**

Maximum cases were from Urban 793 (75.5%) and Rural 257 (24.5 %). The present study indicates Males (77.6%) are more compared to females (22.4%). This confirms with the study conducted by Dileep Kumar R *et al.*, [4] Santhosh Chandrappa Siddappa *et al.*, [5] Timsinha *et al.*, [6] and Brahmankar TR *et al.*, [7]. This may be due to the fact that males are more exposed to vehicle use and outdoor activities. The most common age group is 20-40 years (47.8%) followed by 41-60 years (28.3%). This agrees with the studies conducted by S. N. Hussaini *et al.*, [8] Muhammad Amjad Bhatti *et al.*, [9] Haridas *et al.*, [10] and Santhosh Chandrappa Siddappa *et al.*, [5]. By analyzing the pattern of cases it is observed that maximum numbers of MLC are RTA (73.9 %). This agrees with the findings of Dileep Kumar R [4], Timsinha *et al.*, [6] Hussaini *et al.*, [8] Trangadia MM *et al.*, [11] Yattoo G H *et al.*, [12]. In this study, road traffic accidents form highest number of medico-legal cases. The reason is being the national highway, NH4 connecting the major cities pass through city. The no obedience of traffic rules and drunken driving contribute to increase in such incidences. Proper implementation of traffic rules can decrease the number of road traffic accidents. Also proper education of the public about the traffic rules and the consequences of its violation could reduce the number of such cases. Also proper counselling for developing positive attitude and controlling the aggression in youth have to be promoted.

## CONCLUSION

The present study shows maximum number of cases were road traffic accidents and among young individuals and Urban Inhabitants. By giving proper education, training of safety standards and awareness among public the frequency of these cases can be reduced. Strict laws should be enforced to reduce the road traffic accidents.

**Conflict of interest:** None

**Source of Support:** Nil

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