

A Study on Pattern of Medico-Legal Cases at ESIC Medical College, Kalaburagi

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Abstract

In casualty, Casualty Medical Officers come across a maximum number of Medico-legal cases. Any case where the doctor feels that it should be investigated by the Police or a Magistrate is considered as Medico legal case. As it is a Medico legal case, there will be an inquiry by the investigating officer and if needed an Investigating officer may require a report of that case to produce to the court. The doctor who has issued report can be called to the court to give the evidence regarding that case. Identifying the pattern of injuries, types of cases, age-wise distribution, and sex distribution of Medico-legal cases reported to the casualty department of the hospital will help administrators, social workers, NGO's, and policymakers to successfully manage and prevent such cases by devising necessary policies. A retrospective study was conducted at Employee State Insurance Corporation Medical College, Kalaburagi, Karnataka, India. All the reported cases to casualty between April 2022 and March 2023 at ESIC Medical College, Kalaburagi were analyzed. Total of 452 Medico-legal cases were analyzed which were attended in casualty in span of one year out of total 11288 Casualty cases. In that 344 were male and 108 female patients. In the present study, the maximum MLCs were Road Traffic Accidents, followed by assault, poisoning and others.

Keywords: Medico-legal cases, Road traffic accidents, Injury, Assault, Poisoning, and Casualty.

Introduction

In casualty, Casualty Medical Officers come across a maximum number of Medico-legal cases. Any case where the doctor feels that it should

be investigated by the Police or a Magistrate is a Medico legal case. Which includes, injury as a result of assault, accident, suicide, self-inflicted, firearm, animal bite and bomb explosion, poisoning, and any unnatural case. It also includes a legal case when

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brought by the police for examination, requiring medical expertise since a doctor's knowledge may be necessary for the administration of law. It is an examination of the living person carried out under the law of the state for the protection of society and to help the administration of justice¹. Medico-legal cases are an essential component of medical practice and comprise the most important constituent of emergencies². In such cases, treatment of the patient along with proper documentation is very important. As it is a Medico legal case, there will be an inquiry by the investigating officer and if needed an Investigating officer may require a report of that case to produce to the court. The doctor who has issued report can be called to the court to give the evidence regarding that case.

Medico-legal cases cause extra burden to the hospital. Along with the treatment of the patient, detailed documentation, evidence collection, and intimation of police should be done. If necessary treated doctor may be asked to attend the court at his own expense. So it is both a human resource and financial burden on the hospital. In such cases, police intimation should be sent at the earliest. The idea is to initiate legal proceedings at the earliest so that maximum evidence can be collected to study the crime pattern in the area³. Among the medico-legal cases Road Traffic Accidents cases are more. Road traffic injuries are the leading cause of death globally and the principal cause of death in the age group of 15 to 49 years. Every year the lives of approximately 1.3 million people are cut short globally as a result of a road traffic crash. Unfortunately, more than 90 percent of road traffic deaths occur in low- and middle-income countries, even within high-income countries, people from lower socioeconomic backgrounds are more likely to be involved in road traffic crashes. India, ranks at the top with highest number of fatalities with about 11% share in the world. As per the 'Road Accidents in India 2021', there were 4,12,432 unfortunate incidences of road accidents during 2021 which claimed 1,53,972 lives and caused injuries to 3,84,448 persons⁴. As per the National Crime Record Bureau latest report on Road Accidents in India-2021, in Karnataka state, a total 40754 injured and 10,038 people died in road mishaps⁵.

Identifying the pattern of injuries, types of cases, age-wise distribution, and sex distribution of Medico legal cases reported to the casualty department of the hospital will help administrators, social workers, NGO's and policymakers to successfully manage and prevent such cases by devising necessary policies.

Total of 452 Medico-legal cases were analyzed which were attended to casualty in span of one year out of total 11288 Casualty cases. In that 344 were male and 108 female MLCs.

The present study is carried out with the objective of knowing different types of MLC, the pattern of injuries in Medico-legal cases and age - sex-wise distribution of cases, that were documented at the casualty of ESIC Medical College, Kalaburagi.

Materials and Methods

A retrospective study was conducted at Employee State Insurance Corporation Medical College, Kalaburagi, Karnataka, India. All the reported cases to casualty between April 2022 and March 2023 at ESIC Medical College, Kalaburagi were analyzed. Non Medico legal cases and cases with incomplete records were discarded. A total of 11288 cases were reported to casualty, in which 452 cases were Medico legal cases. Data related to the date of reporting the casualty, age, gender, and cause of being MLC were collected from the records. For sorting and analyzing data SPSS16 was used.

Results

Results are shown in the form of chart, graphs and tables. Total of 452 Medico-legal cases were analyzed which were attended to casualty in span of one year out of total 11288 Casualty cases. Of that, 344 were male and 108 female patients, which is shown in Figure - 1. Figure - 2 shows types of Medico-legal cases. Out of a total of 452MLC, 236 are male RTA cases and 34 are female RTA cases, 34 male assault cases and 12 female assault cases, 12 male poisoning cases and 24 female poisoning cases, 30 self-fall cases (26 Male and 4 female), Animal bite 18 cases (12 male and 6 female), burns total 12 cases(male 10 female 2), hit by bull 8 male and 2 female cases, workplace injuries 10 male cases and others 10 male cases. Figure - 3 shows the region-wise distribution

of injuries. Head and Neck injuries were seen in 192 cases (160 males and 32 females), thoracic injuries in 20 cases (male 16 and female 4), abdominal injuries in 10 cases (8 males and 2 females), upper-limb injuries in 150 cases(120 males and 30 females) and lower limb injuries seen in 126 cases(110 males and 16 females). Column chart 2 shows age and sex-wise distribution of Medico-legal cases. Table number 1 shows types of injuries in various Medico-legal cases. Figure - 4 shows types of RTA cases. Figure - 5 shows cases of animal/reptile bites.

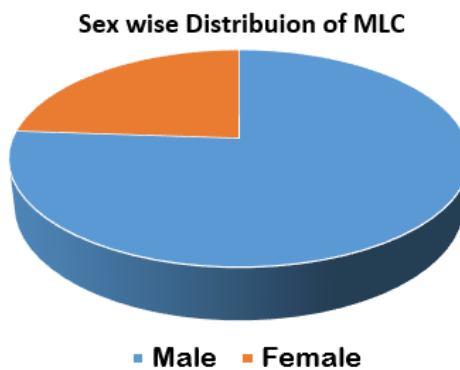


Figure - 1

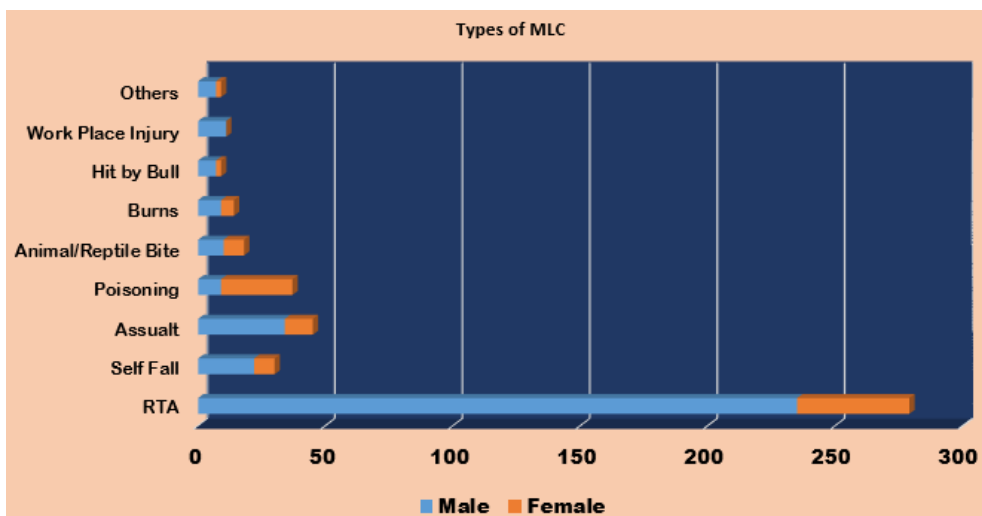


Figure - 2

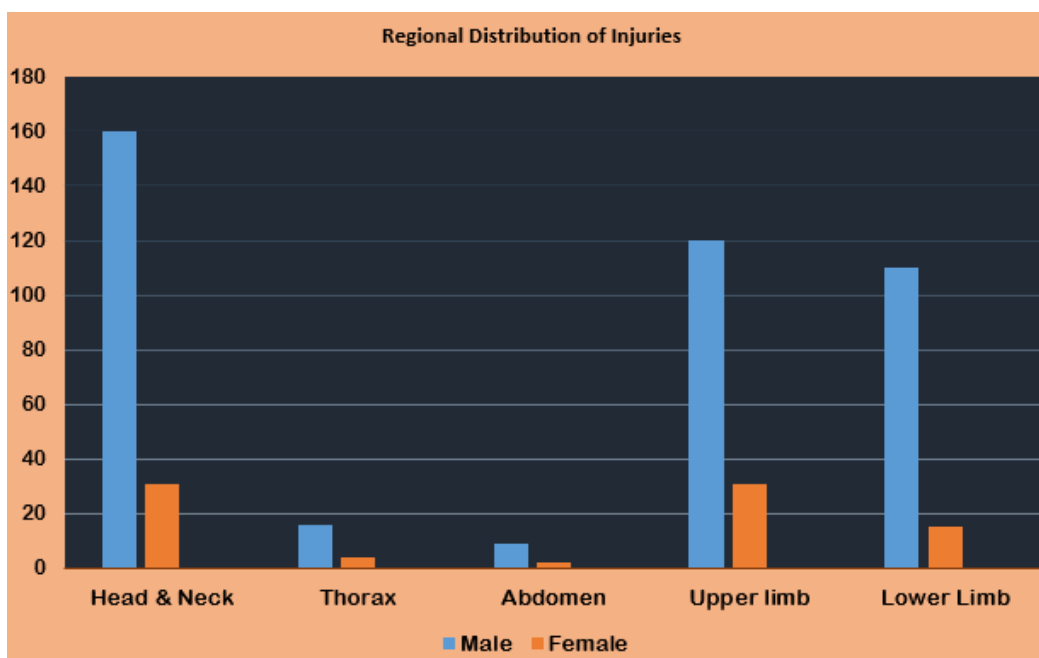


Figure -3

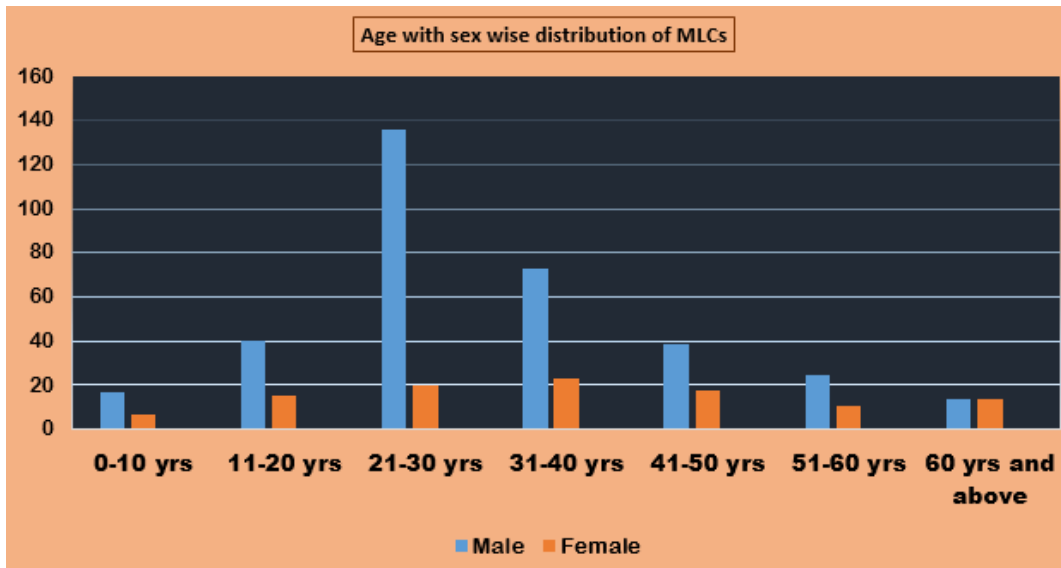


Figure - 4

Table No. 1: Shows types of injuries in various Medico-legal cases.

	Laceration	Abrasion	Contusion	Incision	Fractures
RTA (Under influence of Alcohol)	19	36	7	0	5
RTA (Not under influence of Alcohol)	31	82	3	0	4
RTA (Self Fall)	83	148	5	3	10
RTA (Collision with other Vehicle)	24	38	4	0	1
Assault	16	16	7	0	3
Self-Fall	9	10	3	0	0
Total	182	330	29	3	23

Types of RTA cases

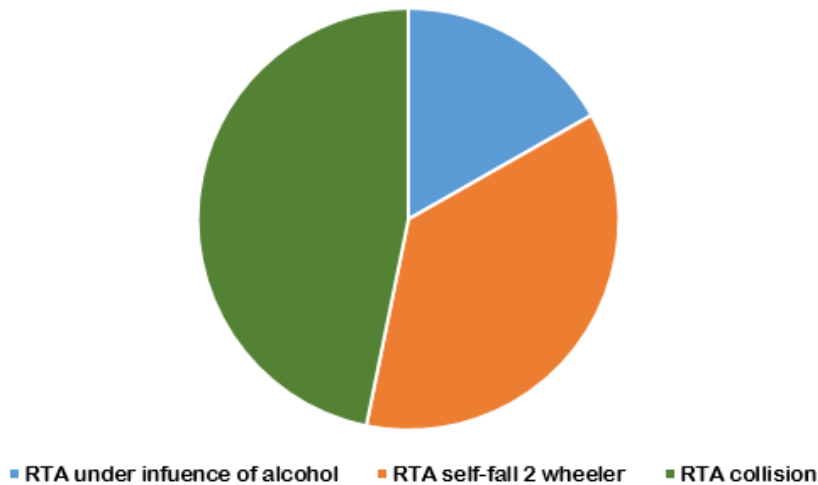


Figure - 5

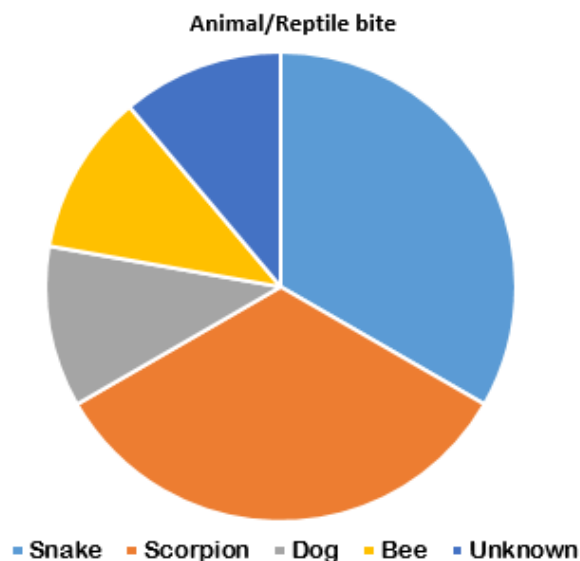


Figure - 6

Discussion

When it comes to casualty, Medico-legal cases are more common. Casualty Medical officers are more worried about handling Medico-legal cases. The social, demographic, and epidemiological transition due to rapidurbanization, mechanization, and industrialization has augmented the frequency of such cases⁶. The present study shows that male MLCs (76.1%) are more common when compared with female MLCs (23.9%). Females are less helpless against relational interpersonal violence-based injury because of vengeance-free behavior and a traditionalist way of life. As males are more exposed to the outside world and events can happen at workplaces, on the roads, and other places of exposure.^{7,8} This is consistent with the study conducted by Dileep Kumar R, Siddaramanna TC, Shailesh V Parate, et. al.⁹, Dr. Manju. L, Dr. Nazeema Beevi. P¹⁰, Malik R, Atif I, Rashid F, et. al.¹¹, Timsinha S., Manjari S. K., Baral M. P.,¹² and Brahmankar, T. R., Sharma S. K.¹³ The present study reveals that maximum cases are RTA 279(235 male and 44 female cases), followed by assault 45(34 males and 11 female cases), poisoning 38(M/F - 9/28), self-fall 30(M/F - 22/8), animal bite 18(M/F - 10/8), burns 14(M/F - 9/5), workplace injuries 11(all male) hit by bull 9 case and 9 others. The present study results that is RTA cases being the maximum cases among MLCs is consistent with studies of Trangadia MM et al¹⁴, Yatoo GH et al¹⁵ and

Siddappa S. C., Datta A. The commonest injuries are abrasion followed by lacerations, contusions, fractures, and incise wounds. Most common age group is 21 to 30 years (156 cases/ 34.51%) followed by 31 to 40 years (95 cases/ 21.01%), which is consistent with a study conducted by Zaheen U.¹⁶ Age group 21 - 30 years, has a great socio-economic impact as any kind of trauma leading to temporary and permanent disability and that will affect the individual as well as its family and as a whole society. According to the Karnataka Honorable High Court Order in Criminal Petition no: 370 of 2023 Dated 17-A2-2023, it has been noted that Wound Certificates are not being recorded correctly and written legibly and has hence directed Commissionerate Health & Family Welfare Services, 5th Floor Arogya Soudha, Magadi Road, Bengaluru -560 023 to issue directions on the legible and correct recording of Wound Certificate by concerned. In case of grievous injury expert/specialist opinion is to be taken when required. Legally all MLC cases are to be intimated to the police in writing as per the Police Information Register and a written copy of it is to be maintained. Communication with the police, orally (or) through the phone is not acceptable. It is observed that in some of the medico-legal cases the patient was not given an OP slip and is referred to Taluk Hospital or Higher Centre with minimal documentation, then the Taluk Hospital or Higher Centre shall issue the wound certificate and provide treatment.

Conclusion

In the present study, the maximum MLCs are Road Traffic Accidents, seen more in males in the young age group (21-30 years), which has a great socio-economic impact. In this 17% of the cases were under the influence of alcohol, 47% collision, and the remaining self-fall from bike (36%). Not following traffic rules, drink and drive increases the incidence of Road Traffic accidents. Strict implementation of traffic rules, avoiding drink and drive, use of helmets/seat belts, avoiding use of mobiles while driving, and avoiding overspeeding, can reduce road traffic accidents. Next common is assault, followed by poisoning and others. To handle such cases emergency department should be well-equipped with antidotes and other drugs necessary for treating such cases. Doctors in casualty are not only involved

in treating patients but also in handling MLC. So they should be aware of the proper handling of Medico-legal cases. It will be good if MLCs are handled by specialists or by doctors trained by the specialist. This can definitely reduce cases of medical negligence and help in delivering the proper justice.

Conflict of Interest: There is no conflict of interest in our study as we have not gained any financial benefits from any organization.

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Ethical clearance: NA

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