

Content available at: <https://www.ipinnovative.com/open-access-journals>IP International Journal of Forensic Medicine and
Toxicological SciencesJournal homepage: <http://www.ijfmts.com/>

Original Research Article

Study on pattern of medicolegal cases in casualty of government medical college
Kolhapur MaharashtraNikhil Jagtap¹, Manoj B Patekar^{2,*}¹Dept. of Forensic Medicine & Toxicology, Rajarshi Chhatrapati Shahu Maharaj Government Medical College and CPR
Hospital, Kolhapur, Maharashtra, India²Dept. of Forensic Medicine & Toxicology, Government Medical College, Baramati, Pune, Maharashtra, India

ARTICLE INFO

Article history:

Received 06-09-2021

Accepted 10-09-2021

Available online 28-09-2021

Keywords:

Casualty

Medicolegal cases

Assault

Road traffic accidents

Snake bite

Poisoning

ABSTRACT

Medico-legal case is any quite case where the accompanying registered medical practitioners (RMP), after obtaining a detail history and examining the patient, thinks that some investigation or procedure by law enforcement agencies is required to establish and the responsibility for the case in accordance with the law or legal ground. This study is run to hunt out the frequency and pattern of medico-legal cases reported at a tertiary care hospital and to spotlight the vulnerable gender, age, residence and the cause.

Materials and Methods: This is often retrospective study during which all the MLC cases registered in MLC record during a period of two years (1 January 2018– 31 December 2020) were included. Non medico-legal were excluded. Variables such as gender, age, time period between injury and reporting to casualty, were considered Findings were expressed in numbers and percentages.

Results: The total 2450 cases were registered as “medico-legal” out of which 1866 (79.4%) were males and 484 (20.6%) were females. Maximum cases were from the age bracket of 21-30 years i.e., 905 (36.93%). Most of the medico-legal cases registered were because of road traffic accidents 1154 (47.10%), fall (41.5%), and assault (6.73%) snake bite (6.4%), poisoning (14.81%)

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

A medico-legal case is any type of case where the accompanying registered medical practitioners (RMP), after obtaining a detail history and examining the patient, thinks that some investigation or procedure by law enforcement agencies is required to establish and fix responsibility for the case in accordance with the law or legal ground.¹ Casualty department is that the backbone of each hospital. It deals not only with medical and surgical emergencies around the clock but also deals with an enormous number of medico-legal cases which comprises accidents, assaults, burns, poisoning, and sudden death operative deaths, suicide,

homicide, any suspicious deaths and cases referred from police or court.² It is a responsibility of a registered medical practitioner to judge each and every cases properly and in doubtful cases, it's better to tell the police. This saves the doctor from unnecessary and needless allegations later. Medico-legal case is an integral part of medical practice that is frequently encountered by medical officers working in emergency department. For such patients, not only treatment, but exhaustive documentation is additionally mandatory. The on-duty doctor within the casualty department has got to first stabilize the tolerant any emergency. He is also duty sure to register a specific case as a medico-legal case whenever indicated and has got to examine an equivalent. In the present study an effort is formed to understand the workload of medico-legal cases

* Corresponding author.

E-mail address: nikhiljagtap13.nj@gmail.com (M. B. Patekar).

and their pattern. The objectives of the study was to assess the frequency and pattern of medico-legal cases reported at a tertiary care hospital and to spotlight the vulnerable gender, age, residence and the cause.

2. Materials and Methods

This is a retrospective study of medico-legal cases registered in a casualty of Rajashree Chhatrapati Shahu Maharaj Government Medical College & CPR Hospital Kolhapur, Maharashtra for a period of two years from 1 st Janaury2018 to 31 December 2020. During the study period a total of 2450 medico-legal cases were registered. The collected data was analysed and represented in form of tables by mentioning various parameters and compared with other resembling studies Individuals from both genders and all age groups were included and people with no medico-legal perspective were excluded from study.

3. Observation

Total number of medico-legal cases included in the study were 2350 from the record of medico-legal cases from 1st Janaury2018 to 31 December 2020 Out of 2350 cases, 1754 (71.59%) were males and 696 (28.40%) were females. In the present study, maximum number of cases 905 (36.93%) were from the age group of 21-30 years followed by 508 (20.73%) from the age group of 31 – 40 years. Majority of cases 1573 (64.20%) reported to casualty within 1 hour after the incidence, whereas 154 (6.28%) cases reported delayed (after 12 hours) of incidence (Table 4). The maximum cases 1154 (47.10%) were of road traffic accident (RTA), followed by fall from height in 415 (16.93%), poisoning in 363 (14.81%) cases and assault accounted for a total of 165 (6.73%) cases while some cases of 157 (6.40%) snake bite were noted during the study. Maximum numbers of cases 1921 (78.40%) were discharge after the completion of required treatment, while 235 cases (9.59%) were dead during the course of treatment and few 115 cases (4.69%) were mentioned higher center for further treatment.

Table 1: Age & sex distribution of patients

Age Group (Yrs)	No of cases	Percentage
0-10	27	1.10%
11-20	405	16.53%
21-30	905	36.93%
31-40	508	20.73%
41-50	315	12.85%
51-60	165	6.73%
61 & above	125	5.10%
Total	2450	100

Table 2: Gender wise distribution of cases

Gender	No of cases	Percentage
Male	1754	71.59
Female	696	28.40
Total	2450	100

Table 3: Pattern of medicolegal cases with sex wise distribution

Medicolegal cases	Male	Female	Total
Poisoning	227 (9.26%)	142 (5.79%)	369 (15.06%)
Assault	131 (5.34%)	34 (1.38%)	165 (6.73%)
Trauma	103 (4.20%)	30 (1.22%)	133 (5.42%)
Road traffic accident	923 (37.67%)	231 (9.42%)	1154 (47.10%)
Burns	9 (0.36%)	18 (0.48%)	27 (1.10%)
Snake Bite	105 (4.28%)	52 (2.12%)	157 (6.40%)
Hanging	9 (0.36%)	12 (0.48%)	21 (0.8%)
Fall	251 (10.48%)	158 (6.44%)	409 (16.69%)
Dog bite	9 (0.36%)	6 (0.24%)	15 (0.61%)
Total	1767	677	2450

Table 4: Distribution according to outcome of the cases at casualty and sex

Disposal of cases	No of cases	Total
Brought dead	35	1.42%
Discharged after treatment	1921	78.40%
LAMA	155	6.32%
Referred to higher centre	115	4.69%
Hospital death	224	9.14%
Total	2450	100%

Table 5: Time period between incidence & reporting to casualty

Time period	No of cases	Percentage
< 1 hr	1573	64.20%
1 - 2 hr	335	13.67%
2-4 hr	215	8.77%
4-12 hr	173	7.06%
> 12 hr	154	6,28%
Total	2450	100%

4. Discussion

In our study it was observed that most of the victims were males (71.59%). Our findings are consistent with study conducted by Trangadia MM et al.³ Hussaini SN et al.⁴ Yatoo GH et al.⁵ The predominance of males over females may be attributed to the male dominance in the society and males who work outside to earn their daily bread are more vulnerable, while females usually stay at home and look after the house hold work. In present study majority of

victims (36.93%) from age group 21 – 30 years followed by 31 – 40 years (20.73%) and 11 – 20 years (16.53%). Our results were also similar with the study conducted by Trangadia MM et al.³, Hussaini SN et al.⁴, Yadav A et al.⁶ Result shows that the people of the most active and productive age group involve themselves in outdoor activities, so they are more prone to accidents.

In the present study road traffic accidents constituted 47.10%, poisoning and fall constituted 15.06% & 16.69% respectively followed by assault in 6.73% of cases. The findings related to majority of medicolegal cases of our study are according to the studies conducted by Trangadia MM et al.³, Yattoo GH et al.⁵ where road traffic accidents constituted majority of medico-legal cases. Poor road condition prevailing for a decade in both urban and rural areas, increasing population in the city day by day contributes maximum number of road traffic accidents. Yadav A et al.⁶ & Malik Y et al.⁷ Studies finding showed that maximum cases reported to casualty were of poisoning which differ from present study. Majority of the victims were discharged from hospital after treatment (78.40%) while in 6.32% of the victims had absconded or took LAMA (Leave against medical advice), 4.69% of cases were referred to higher centre and death was noted in 9.59% of cases which were subjected for medico-legal autopsy. Our observations are according to study conducted by Trangadia MM et al.³, Yadav A et al.⁶ This shows the notice and health consciousness among the population, effectiveness of early initiation of treatment in emergency cases and also sophisticated facilities to affect medical emergencies.

5. Conclusion

Casualty or emergency department of a medical college receives different types of emergency cases including medico-legal cases. In the present study maximum number of medico-legal cases was of road traffic accident, seen among young individuals or adults such incidences can be prevented or minimize by giving proper education, awareness, training of safety standards by law enforcement agencies. In this study maximum number of patients were discharged successfully after treatment and on the other hand referral to higher centers and the number of hospital deaths were very minimum. Medico-legal expert giving training to the medical officers to hold out medico-legal works safely and scientifically can definitely decrease the problems of negligence cases during a developing country

like India. In this present study the maximum number of medico-legal cases are accidental in nature, seen among young individuals. Such incidences are often prevented by giving proper education, awareness and training of safety standards by administrators, health officials, social workers and NGOs to the overall population. Suitable measures have to be taken such as separating casual attendees & emergency cases at the entry point of casualty & channelizing the casual care seekers to OPD, thereby to minimize the burden on staff.⁸

6. Conflict of Interest

None.

7. Source of Funding

None.

References

1. Agarwal SS, Kumar L, Chavali K. Legal medicine manual; 2008. p. 310.
2. Aggarwal A. Textbook of Forensic Medicine and Toxicology; 2014. p. 636.
3. Trangadia MM, Mehta RA, Rada NH, Gupta BD. Profile of medico-legal cases in tertiary care hospital in Jamnagar, Gujarat: Retrospective study of one year. *J Res Med Dent Sci.* 2014;2(4):57–62.
4. Hussaini SN, Kulkarni CS, Batra AK. Profile of medico- legal cases coming to casualty of Government Medical College. *J Forensic Med.* 2013;22(2):1–5.
5. Yattoo GH, Jalali S, Malik A, Khan A. Profile and pattern of medico-legal cases attending tertiary care hospital in North India. *Int J Med Pharm Sci.* 2015;5(5):1–8.
6. Yadav A, Singh NK. Pattern of medico-legal cases in rural area of Fridabad. *J Indian Acad Forensic Med.* 2013;35(1):60–2.
7. Malik Y, Chawla R, Sharma G, Malik P, Singh R, Tripathi A. Profile of medico legal cases in causality of a rural medical college of Hariyana. *J Indian Acad Forensic Med.* 2013;35(4):367–75.
8. Davison AG, Hildrey AC, Floyer MA. Use and misuse of an accident and emergency department in the East End of. *J Royal Soc Med.* 1983;76(1):37–41.

Author biography

Nikhil Jagtap, Assistant Professor

Manoj B Patekar, Assistant Professor

Cite this article: Jagtap N, Patekar MB. Study on pattern of medicolegal cases in casualty of government medical college Kolhapur Maharashtra. *IP Int J Forensic Med Toxicol Sci* 2021;6(3):75-77.