Original Article

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Profile of Medico-Legal Cases in Casualty Department of Rural Medical College, Maharashtra: Retrospective Study of One Year

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Abstract

Background: As proved that humans are different from the other living animals. Human being is a more social and lives in a community. One of the important things which govern the community is rules and regulations. The present work was planned to study the profile of medico-legal cases (MLCs). *Aims:* To evaluate complete profile of medico-legal cases at casualty department of Rural Medical College, Maharashtra. *Material and Method:* Study was conducted retrospectively by assessment of the medico-legal cases during the period from 1st January 2017 to 31st December 2017. *Result:* The total 724 cases were registered as "medico-legal". Men cases were predominated over women cases. The maximum numbers of cases were in the age group of 21-30 years. The most of cases were of road traffic accidents (RTA) 410 cases (56.62%), then followed by fall from height, 72 cases (9.94%). Majority of MLCs were treated on the OPD basis, 379 cases (52.41%). Maximum numbers of cases were discharge after completion of treatment, 584 cases (80.69%). *Conclusion:* The present study showed that load of medico-legal cases at the tertiary care hospital and hospital not only caters to the requirement of patients who reports for their sickness but also carry out legal responsibilities to examine, document and certify medico-legal cases.

Keywords: Medico-legal cases; Road traffic accident; Assault; Poisoning.

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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]. It is the duty of a registered medical practitioner to judge or evaluate the each and every case properly and in suspicious cases, it is better to inform the police. It saves the treating physician from unnecessary or unwanted and needless allegations afterwards. In all emergency cases, be it medical or surgical, comes to the casualty of any hospital and Casualty Medical Officer (CMO) or Resident medical officer (RMO) is the first doctor to attend the patient and give First Aid and save the life of patient. Another duty is to perform all medico-legal formalities concerned to patients. Profiling of Medico-legal cases is an integral aspect for the avoiding of avoidable causalities in future [2]. This study is based on medico-legal cases reported to the casualty of Tertiary Care Hospital attached to Rural Medical College, Maharashtra for a period of 1 year, from 1st January 2017 to 31st December 2017.

Materials and Methods

It was a retrospective study of medico-legal cases registered in a casualty of Tertiary Care Hospital

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attached to Rural Medical College, Maharashtra for a period of 1 year. During the study period a total of 724 medico-legal cases were registered. The collected data was analyzed and represented in form of tables by mentioning various parameters and compared with other resembling studies.

Observations and Results

In the present study, a total of 724 medico-legal cases were reported (Table 7), out of which, male ascendancy was noted with 75.41% of cases and females were 24.58% (Table 2). While considering religion, most of the cases were belong to Hindu community (93.92%), followed by Muslims in 5.93% cases and Christians were 0.13% (Table 3). Most of patients were from the age group of 21-30 years i.e. 36.46%, followed by 20.02% cases belonging to 31-40 years age group (Table 1). Majority of cases (66.29%) reported to casualty immediately after the incidence, whereas 4.55% cases reported delayed (after 12 hours) of incidence (Table 4). The maximum cases (56.62%) were of road traffic accident (RTA), followed by fall from height in 9.94%, poisoning in 8.97% cases and assault accounted for a total of 7.87% cases while some cases of 6.21% snake & scorpion bite and few (3.03%) cases were brought dead to the casualty (Table No. 7). After analysis of cases by month wise distribution, maximum number was observed in month of October (11.32%), followed by April in 9.53% (Table No. 7). Most of MLC were treated on the OPD basis, 379 cases (52.41%), out of which 357 cases (49.38%) were living while 22 cases (3.03%) were brought dead to casualty; indoor cases were 345 cases (47.59%) (Table 5). Maximum numbers of cases were discharge after the completion of required treatment, 584 cases (80.69%); while 70 cases (9.68%) were dead during the course of treatment and few 32 cases (4.45%) were referred to higher center for further treatment (Table 6).

Table 1: Age Wise Distribution of Cases

Age Group (Yrs)	No. of Cases	Percentage (%)
0-10	38	5.24
11-20	114	15.74
21-30	264	36.46
31-40	145	20.02
41-50	92	12.7
51-60	45	6.21
61 & Above	26	3.59
Total	724	100

Table 2: Gender Wise Distribution of Cases

Gender	No. of Cases	Percentage (%)
Male	546	75.41
Female	178	24.58
Total	724	100

Table 3: Religion Wise Distribution of Cases

Religion	No. of Cases	Percentage (%)
Hindu	680	93.92
Muslim	43	5.93
Christians	01	0.13
Total	724	100

Table 4: Time Period Between Incidence & Reporting to Casualty

Time Period	No.of Cases	Percentage (%)
< 1 hr	480	66.29
1-2 hrs	97	13.39
2-4 hrs	59	8.14
4-12 hrs	55	7.59
>12 hrs	33	4.55
Total	724	100

Tabel 5: Distribution of Cases on the Basis of OPD or Admisssion (Indoor)

Treated as	No. of Cases	Percentage (%)
OPD	379	52.41
Indoor	345	47.59
Total	724	100

Table 6: Distribution According to Disposal of Cases

Disposal	No. of Cases	Percentage (%)
Discharge	584	80.69
Absconded	38	5.18
Death	70	9.68
Referred	32	4.45
Total	724	100

Table 7: Monthly Distribution of Different Categories of MLC From January 2017 to December 2017

Category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
RTA	31	24	36	34	38	33	29	32	36	47	37	33	410	56.62
Assault	6	2	6	7	5	1	3	6	6	5	5	5	57	7.87
Fall From Height	7	4	4	8	7	3	4	4	5	11	8	7	72	9.94
Poisoning	5	4	6	6	7	5	6	4	5	8	3	6	65	8.97
Railway Accident	1	0	1	0	1	0	1	0	0	1	1	0	6	0.82
Burn	1	5	3	1	2	1	2	1	2	1	2	2	23	3.17
Electrocution	2	0	0	2	2	0	0	1	0	1	2	1	11	1.51
Snake / Scorpion Bite	5	3	4	6	3	2	2	3	5	7	3	2	45	6.21
Alcohol Intoxication	0	0	1	0	1	0	0	0	1	0	0	0	3	0.41
Drowning	1	0	0	1	0	0	0	0	0	0	0	0	2	0.27
Hanging	0	1	0	0	0	1	0	1	0	0	1	1	5	0.69
Hit By Animal	1	0	0	0	1	0	0	0	0	0	0	1	3	0.41
Brought Dead	3	1	2	4	1	3	1	1	1	1	2	2	22	3.03
Total	63	44	63	69	68	49	48	53	61	82	64	60	724	100

Discussion

It was noted that majority of the cases were of male (75.41%). This finding was supported by other similar studies [3,4,5,6,7]. The male predominance was observed because males were active in various day to day outdoor activities and other social events. They were main or primary earner in the most of families. Males were vulnerable and exposed to such various situations which fall as MLCs in this study.

In the present study victims of Hindu religion were more of either sex. It was because of Maval region has a predominantly of Hindu population.

It was observed that majority of the cases fall in age group of 21-30 years (32.10%). It may be due to their active, aggressive and arrogant by behaviour. It was mainly due to the more vulnerable, fast changing social trends and culture. Most of them were married, exposed various family associated problems as well as social commitments.

In our study, majority of the victims (66.29%) reported to casualty within immediately after the incidence, followed by 13.39% of the victims within 1– 2 hours of the incidence. This finding is consistent with other studies conducted by Yadav A et al. and Siddappa SC. Their findings were 51.94% cases within 1 hour and 20.12% within 1- 2 hours of incidence. It may be due to tertiary care hospital is in their close vicinity or approachable distance.

Majority of the cases were treated on the OPD (49.38%) basis as they didn't required hospital stay whereas 345 indoor cases were transferred to the surgery and other respective departments, because maximum cases of road traffic accidents, assaults, fall from height, some animal bite, and burns etc., were treated in to the surgery and other respective departments. The similar observation made by Malik et al in earlier study.

Present study revealed that maximum cases reported to casualty were of RTA (56.62%). This finding was consistent with other studies [8,9,10,11]. Majority of accidental cases may be due to our medical college being situated on the side of a busy national highway and also a nearby situated big square, where some times traffic signal not working due to some reasons.(despite multiple complaints) or in absence of traffic police on that square to manage traffic. Malik Y et al. and Yadav A et al. studies finding showed that maximum cases reported to casualty were of poisoning which differ from present study. Our study was also in contrast with the findings of earlier study done by Hussain SN et al., who observed maximum number of cases reported to casualty were of burnt.

Conclusions and Recommendations

Casualty or emergency department of a medical college receives all type of emergency cases including medico legal cases. In medico legal cases additional work or documentation required, which puts a lot of burden in the casualty. Most of times duty of CMO is done by a MBBS doctor who is not specialist in handling medico legal cases. Expertise of concerned subject having knowledge with adequate experience of such cases but the same thing may observed with MBBS doctor who working as CMO. The doctors who are involved in treatment of such cases need to be more trained in same field. The sensitive or important things of medico-legal work should be carried out under the supervision of senior medical officers as part of their training in the field, so as to avoid imprecision in giving the opinion.

Poor or unclear opinion is not good than any opinion at all, as the later can mislead the case and may lead to administration of injustice.

In the present study, maximum number of medico-legal cases was of road traffic accident, seen among young individuals or adults and mostly in urban inhabitants. Such incidences can be prevented or minimize by giving proper education, awareness, training of safety standards by administrators and by law enforcement agencies. Moreover, a national drive or program should be started, just like "Swachh Bharat Abhiyan". There should be a road-safety program in which all the cities of our country must be ranked on the basis of various criteria like standard of roads, functioning of traffic signals, obeying of traffic rules and accident cases number per year etc.

Conflict of Interest: There is no conflict of interest; the author does not have financial or other relationship with other people or organization that may inappropriately influence the author's work.

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