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Profile of Medicolegal Cases at Rajendra Institute of Medical Sciences, Ranchi, Jharkhand from 2014-2015

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Abstract: *The study of the profile of medicolegal cases is to draw public attention and awareness towards the casualties. The study is important to prevent these unnatural deaths, thus reducing incidence of these cases. The observation of the study was done from August 2014 to July 2015 in the Department of Forensic Medicine and Toxicology, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand. This was done to analyze the magnitude and pattern of medicolegal cases in this region. This type of study has not been conducted in Ranchi since the creation of the state on 15th November 2000. Our study revealed that road traffic accidents (39.14%) constituted the majority of medicolegal cases out of total 368, followed by burns and diseased cases(12.5%) and (8.70%) respectively. The study show male (70.4%) cases are more prone to unnatural deaths than females (29.6%). People of age group 21-30 years (28.26%) are most affected group. Majority of cases reported were in the month of August.*

Keywords: *medicolegal cases, road traffic accidents, unnatural deaths.*

I. Introduction

Medicolegal cases constitute a considerable segment of emergencies brought to the hospital. A doctor needs to be sensitive about the medicolegal cases which constitute a substantial proportion and their exhaustive documentation. A medico-legal case is a case of injury or illness where the attending doctor, after eliciting history and examining the patient, thinks that some investigation by law enforcement agencies is essential to establish and fix responsibility for the case in accordance with the law of the land [1]. Injury is defined under section 44 IPC as "any harm whatever illegally caused to any person, in body, mind, reputation or property" [2]. The common medicolegal cases include alleged cases of assault, road traffic accidents, burns, poisoning etc.

In spite of recent advancement of technology in the field of medical sciences, death and deformities due to all causes, are yet to be controlled successfully; rather incidences of road traffic accidents has been increasing at an alarming rate throughout the world [3]. By the year 2020 it is estimated that in countries like India, mortality from injury will be more than those from communicable diseases. Despite this documentation, injuries are still not well recognized as major public health problem in this country [4].
The study has documented the magnitude and pattern of medicolegal cases in this region.

II. Materials And Methods

The study was conducted from August 2014 to July 2015 of all medicolegal cases coming to Department of Forensic Medicine and Toxicology, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand. Information regarding gender, age, demography, mode of injury was confirmed from victim's attendant and police. The collected data were analyzed, observation discussed and compared with other studies.

III. Observation And Results

Table-1: gender-wise distribution

Sex	Total	%
Male	259	70.4
Female	109	29.6
Total	368	100

Table-1 shows percentage of male victims (70.4%) was more than females (29.6%) in the ratio of 2.4:1.

Table-2: age-wise distribution

Age(years)	Cases	%
0-10	11	2.99
11-20	63	17.12

21-30	104	28.26
31-40	64	17.39
41-50	55	14.95
51-60	53	14.40
>60	18	4.89
Total	368	100

Table-2 shows the victims of age group 21-30 years for the majority of cases (28.26%) followed by 31-40 years and 11-20 years (17.39% and 17.12% respectively).

Table-3: rural/urban wise distribution

Area	**Total**	**%**
Rural	238	64.67
Urban	130	35.33
Total	368	100

Table-4: month-wise distribution

Month	**Cases**	**%**
January	31	8.43
February	18	4.89
March	37	10.05
April	37	10.05
May	47	12.77
June	27	7.34
July	17	4.62
August	54	14.67
September	21	5.72
October	30	8.15
November	43	11.68
December	6	1.63
Total	368	100

Table-3 shows that rural victims (64.67%) are more than the urban which comprised 35.33% of the total cases.
Table-4 shows that maximum cases reported were in the month of August (14.67%) followed by month of May (12.77%) and November (11.68%).

Table-5: mode of injury

Type of cases	**No. of cases**	**%**
Road traffic accidents	144	39.14
Fire-arm injuries	2	0.54
Electric burns	8	2.17
H/o fall	30	8.15
Railway accidents	10	2.72
Drowning	18	4.89
Poisoning	22	5.98
Burns	46	12.50
Assault	19	5.16
Hanging/strangulation	20	5.43
Disease	32	8.70
Lightening	3	0.82
Snakebite	9	2.45
Elephant trample	2	0.54
Cow attack	1	0.27
Septicemia	1	0.27
Others	1	0.27
Total	368	100

Table-5 shows distribution of cases according to their mode of injuries. Road traffic accidents forms majority of the cases (39.14%) followed by burns (12.50%) and diseased cases (8.70%). Notably two cases of elephant trampling were reported and one case in which victim was attacked by cow.

IV. Discussion

In the present study, 368 medicolegal cases were brought to the Department of Forensic Medicine and Toxicology, Rajendra Institute of Medical Sciences, Ranchi, Jharkhand during the period of one year (1st August 2014 to 31st July 2015). Road traffic accidents comprised of the maximum number 144(39.14%) followed by burns 46(12.50%) and diseased cases 32(8.70%) [TABLE 5].

There is overwhelming majority of male victims 259(70.4%) [TABLE 1] which is consistent with other studies [5-10]. It is due to greater male exposure on roads, construction area and farms.

The most common age group affected was 21-30 years with 104(28.28%) cases [TABLE 2]. This is consistent with the studies available from India and other countries [5-7, 9-11]. This is due to the reason that this group is most active physically and socially compared to other groups.

The majority of cases were from rural population 238(64.67%) while urban cases were 130(35.33%) [TABLE 3].

Highest number of cases 54(14.67%) were brought in the month of august and 122(33.15%) cases during July to October (rainy season) [TABLE 4].

V. Conclusion

The present study shows that majority of the victims were males. Rural population was mostly affected. Majority of the victims represented from younger age group (21-30 years). The maximum cases were reported in the month of august. Road traffic accidents was the major case reported and continues to be a growing menace incurring heavy loss of valuable manpower and human resources along with the corresponding drain of potential growth.

Thus, studying frequency of pattern of these cases proved to be valuable data for government, social workers, NGOs to devise strategies in order to reduce these incidences. And the doctors are also need to be better trained about handling these cases and a proper medicolegal cell to be established manned by concerned experts.

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