

Profiling of medico legal cases attending casualty at Sri Manakula Vinayagar Medical College, Puducherry

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Abstract

In any hospital the place where the medical emergencies are reported first is the department of casualty. Casualty deals with most of the medico legal cases when compared with any other departments. The present study was aimed to profile the different types of medico legal cases reported to casualty in order to assess the various medico legal cases arriving to the study center so that the necessary health care facility and the preventive measures can be adopted. The study was conducted from January 2014 to December 2014. A total of 2391 Medico legal cases were studied and analyzed. The maximum number of cases were males (1596) and the male to female gender ratio is 2:1. The majority of the cases were road traffic accidents (936) followed by poisoning (452). Month of January (266) had the highest incidence of case arrival followed by April (230).


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

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INTRODUCTION

Medico legal case is a case of injury or illness subsequent to trauma or poisoning caused by an obvious cause or obscure reasons and the treating physician after careful evaluation concludes that the case should be probed by an investigating agency in order to clarify the cause of illness and to inculcate the perpetrator in accordance with the law of the land.¹ Casualty Department of any hospital handles most of the medico legal cases. The doctor attending the medico legal cases not only treats the patient to fulfil his medical obligation but also makes documentation in order to meet his legal obligation towards the case.² Puducherry is a multicultural city

which encounters a high level of Medico legal cases every year. Several steps have been taken to minimize the different types of Medico legal cases by the territorial administration. In order to enforce and minimize Medico legal cases, the first step is to identify and profile the medico legal cases³. The present study was conducted in order to analyze the various medico legal cases arriving to the study center in order to equip the health care facility with the required medical supply and health care professionals, inform the concerned authorities to adopt suitable preventive measures and also to conduct various health education programs in the locality.

MATERIALS AND METHODS

The present study is a retrospective study conducted in the casualty at the Manakula Vinayagar medical College, Pondicherry from 1st January 2014 to 31st December 2014. General information like age, sex, mode of injury, months of arrival to the casualty were collected from medico-legal registered. During this study period the total 2391 medico-legal cases were registered in casualty of Manakula Vinayagar medical College, Puducherry. Details of medico legal aspects were gathered and analyzed using analyzed in SPSS 20.

OBSERVATIONS AND RESULTS

During the study period 2391 medico legal cases were reported to the casualty. The males (1596) outnumbered females (795) and the female to male ratio was found to be 1:2 (Figure I). The maximum numbers of cases were reported in the age group of 21-30 years (28.9%) followed by age group 31-40 years (22.33%). The minimum number of cases was reported in the age group of 1-10 years (5.86%) followed by >61 years age group (7.07%) (Figure II). With regard to the type of medico-legal cases road traffic accident (RTA) cases were

maximum (936) followed by poisoning cases (452). The male female ratio varied with the type of medico legal cases. Males were predominantly involved in most of the injury types except for poisoning, burns and rail accidents which showed female predominance (Table I). The study showed a maximum number of cases registered in casualty were in the month of January (11.1%) followed by April (9.6%) and minimum cases were reported in the month of November (5.4%) followed by December (6.4%) (Table II).

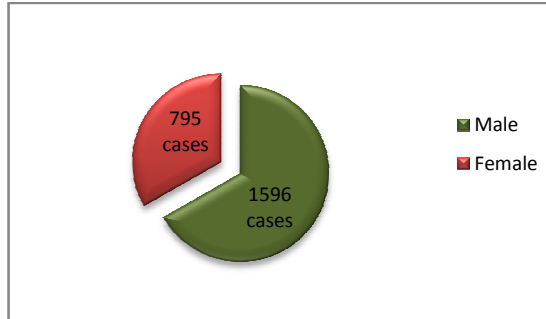


Figure 1: Distribution of male and female medico legal cases

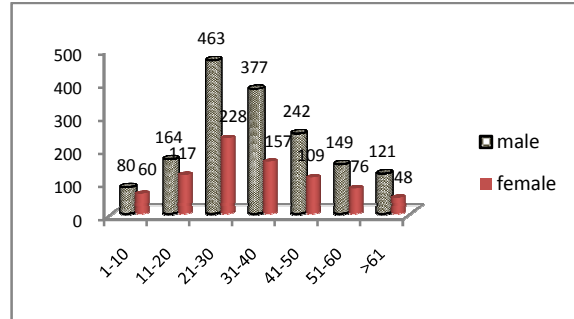


Figure 2: Age wise distribution of medico-legal cases

Table 1: Distribution of medico legal cases with gender

Type of Medico-legal cases	Male	Female	Total	Percentage %
RTA	745	191	936	39.1
Poisoning	213	239	452	18.9
Bite	149	132	281	11.8
Assault	162	62	224	9.4
Rail accident	51	73	124	5.4
Fall from height	75	11	86	3.6
Industrial	71	9	80	3.3
Burns	17	20	37	1.5
Electric Shock	21	16	37	1.5
Hanging	11	9	20	0.8
Brought dead	6	2	8	0.3
Others*	75	31	106	4.4

*the exact cause was not known

Table 2: Month wise distribution of medico-legal cases

Type of Case	MONTH												Total
	Jan	Feb	March	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	
Road Traffic Accident	115	86	72	77	66	75	88	78	81	93	43	62	936
Poisoning	33	38	34	36	49	52	39	39	39	26	34	33	452
Bite	31	23	18	29	22	23	24	41	27	21	12	10	281
Assault	17	12	17	39	22	13	29	19	14	19	14	9	224
Rail	12	15	13	12	18	7	13	2	8	4	4	16	124
Fall	8	5	13	10	8	14	7	2	6	4	5	4	86
Industrial	12	17	6	12	7	4	2	1	2	3	4	10	80
Burns	6	4	2	3	5	8	2	2	1	0	1	3	37
Electric Shock	3	3	2	2	5	2	4	5	2	2	4	3	37
Hanging	3	0	2	1	0	2	2	2	2	2	3	1	20
Brought Dead	2	0	0	1	1	2	0	1	1	0	0	0	8
Others*	24	13	10	8	12	8	9	6	6	3	5	2	106
Total	266	216	189	230	215	210	219	198	189	177	129	153	2391

*the exact cause was not known

DISCUSSION

During the study period 2931 cases presented to the casualty and the males cases (66.75%) outnumbered the females (33.25%) in all age group which is in concordance with the studies conducted by various researchers^{3,4,5,6}. The male predominance might be due to the fact that they are the sole breadwinner in most of the families and they are more commonly engaged in outdoor activities, construction and farming. The maximum numbers of cases were reported in the age group of 21-30 years (28.9%) followed by 31-40 years of age (22.33%) and the results are comparable to the studies conducted at various regions^{3,4,5}. The findings vary with the study conducted by Tariq *et al.*⁶ The possible explanation might be because the people in the age group 21-30 are engaged in education, employment and recreational activities and are susceptible to various types of injuries. In the present study the major cause of injury was due to RTA (39.1%) followed by poisoning (18.9%), insect and animal bite (11.8%) and assault (9.4%). The results of the present study varied with the studies by other researchers. According to Malik *et al.*³ poisoning cases were predominant followed by RTA whereas Yadav *et al.*⁷ study had maximum number of cases were due to poisoning followed by assault and predominance of burn cases followed by assault in Hussaini *et al.*⁸ study. The maximum incidence of RTA cases could be attributed to rapid increased in vehicles, poor road infrastructure, rash and negligent driving, and drunken driving. Another reason to explain the high incidence of RTA cases is the proximity of the study area to the national highway which harbors a heavy traffic. Poisoning cases constituted 18.9% of the cases and this could be attributed to the fact that the study center was situated in the rural area and the lively hood of people around were agriculture and had easy access to pesticides. It was also note that the gender ratio was reversed in poison cases which may be due to lack of proper knowledge in handling poisonous substance or emotional liability to consume poison. In the present males were commonly involves in most of the injury types expect for poisoning, burns and rail accidents that showed female predominance. These observations showed clear indications that females were prone to accidental or self-harm by means of poisoning, burns and rail accidents in rural Puducherry. In this study maximum number of cases registered in casualty were in the month of January (11.1%) followed by April (9.6%). This is attributed to increased number of public holidays and festivals in Puducherry and surrounding Tamilnadu. During these days the people are more actively involved in traveling, farming and recreational activities, hence more prone for different type of injuries. whereas other

studies document highest incidence of medico legal cases in November⁹ and September¹⁰. The incidence of bites were higher in the rainy month of September which is the breeding season for insects and other poisonous reptiles.

CONCLUSION

The casualty department not only plays a vital role in treating the patients but also does documentations on medico legal cases to fulfil the legal obligations. The present study assessed the medico legal cases and the data could be used by the institution to arrange for adequate health care professionals, procure adequate health care needs and conduct health education programs in the locality addressing the preventable ailments like road safety, safe handling of pesticides and first aid measures. In present study maximum number of medicolegal cases were due to RTA, followed by poisoning, bites and assault. This vital information could be used by law enforcement agencies to implement preventive measures in and around the study center.

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