



PROFILE OF MEDICOLEGAL CASES; ACCIDENT & EMERGENCY DEPARTMENT OF SERVICES HOSPITAL, LAHORE.

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INTRODUCTION

The accident and emergency department is the backbone of every tertiary hospital because all cases (of medical & surgical emergencies) are reported first to this department. Therefore, this department plays a vital role not only in treating emergencies but also in catering to the legal needs of the cases. So medico legal cases constitute substantial proportion of workload in tertiary hospitals.¹ These most commonly comprise of alleged cases of assault (physical & sexual), road traffic accidents, burns, poisoning, industrial accidents, and alcoholic intoxications etc.²

Medico legal case is a case of injury or ailment, where the attending doctor, after taking history and examining the patient, considers it necessary that an investigation by law enforcement agencies must be done to ascertain and fix the criminal responsibility for the case in accordance with the law of the land for the purpose of furthering of

ABSTRACT... Introduction: The accident and emergency department is the backbone of every tertiary hospital because it is providing medical as well as legal services to the patients. **Objective:** The aim of the study was to determine the pattern of medicolegal cases attending accident and emergency department of Services hospital, Lahore. **Study Design:** Retrospective study. **Setting:** Accident and Emergency Department of Services Hospital, Lahore. **Period:** 1st January, 2014 to 31st December, 2014. **Materials and Methods:** Data of medicolegal cases was collected regarding age, gender and type of injuries. It was collected on a pre-tested structured proforma and statistically analyzed using SPSS version 14. **Results:** Total number of medicolegal cases was 2166 with male to female ratio 5.1 : 1. Commonest age group affected was third decade (37.6%). Blunt weapon injuries (64.77%) were most common followed by firearm injuries (9.3%) and sharp weapon injuries (8.8%) while the least common were burns (0.2%) and poisoning (0.55%). Sexual assault was predominant in females (63.8%). **Conclusion:** Documentation of medico-legal cases should be done with great care. Injury related morbidity and mortality can be reduced by improvement in health care facilities.

Key words: Medicolegal, Blunt weapon injury, Sexual assault, Firearm injury, Road traffic accidents

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justice.^{3,4}

Numerous studies have been conducted on the profile of medico-legal cases in various cities of Pakistan and also in neighboring countries, yet the pattern of medico-legal cases differ from region to region based on enforcement of law, socio-economic status and cultural norms of the land.² Profiling of medicolegal cases is of utmost importance for reducing the resultant morbidity and mortality and to study the crime rate in area.

OBJECTIVE

The aim of the study is:

1. To study the pattern of medico- legal cases presenting to the accident and emergency department of Services Hospital, Lahore
2. To emphasize the need for implementation of effective preventive measures at national level.

MATERIAL AND METHODS

This was a retrospective study extending over a one year period from 1st January, 2014 to 31st December, 2014 that included all the medicolegal cases brought to accident and emergency department of Services Hospital, Lahore. Individuals of all ages and gender were included and those with no medicolegal perspective were excluded from study. Relevant information was collected by reviewing medico-legal records from the medicolegal registers. A pre-tested structured proforma was used to collect the data regarding demographic profile and types of injuries. Data was analyzed using SPSS 14. This study was approved by the ethical committee of Services Institute of Medical Sciences, Lahore.

RESULTS

A total of 2166 individuals were brought for medicolegal examination to accident and emergency department during the study period. Out of these, majority of victims belonged to the age group 21-30 years (37.6%) followed by 31-40 years (23.3%) and 11-20 years (17.5%) respectively. The frequency of cases decreased beyond 50 years of age as shown in Table-I.

Males (83.6%) outnumbered females (16.4%) with a ratio of 5.1:1 (Table-I and Figure-1).

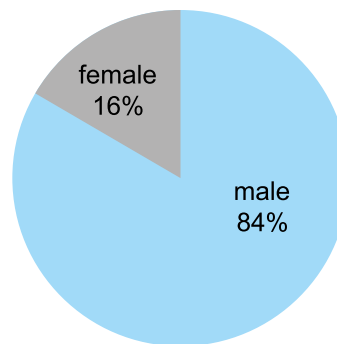


Figure-1. Gender wise distribution of medicolegal cases

Regarding the types of injury, almost two third of the victims suffered from blunt injuries 1403 (64.77%) while firearm injuries 201(9.3%) and sharp weapon injuries 191(8.8%) were second and third commonest type of injuries noted. The least common were burns 4(0.2%) and poisoning 12 (0.55%). Cases of sexual assault were observed predominantly in females 111(63.8%) as shown in Table-II.

Age group (in years)	Male		Female		Total (%)
	No	%	No	%	
0-10	18	1	7	2	25(2.4)
11-20	352	19.4	27	7.7	379(17.5)
21-30	696	38.4	142	40	838(37.6)
31-40	393	21.7	111	31.3	504(23.3)
41-50	228	12.6	40	11.3	268(15.3)
51-60	90	5	17	4.8	107(2.4)
61-70	24	1.3	10	2.8	34(1.6)
71-80	10	0.6	1	0.3	11(0.5)
Total (%)	1811	83.6	355	16.4	2166(100)

Table-I. Age wise Distribution of Medicolegal Cases

Gender	Blunt weapon injury n (%)	Sharp weapon injury n (%)	Firearm injury n (%)	RTA n (%)	Sexual Assault n (%)	Burns n (%)	Alcohol intoxication n (%)	Poisoning n (%)	Total n (%)
Male	1210 (86.2)	174 (91.1)	184 (91.5)	65 (89)	63 (36.2)	4 (100)	105 (97.2)	6 (50)	1811 (83.6)
Female	193 (13.8)	17 (8.9)	17 (8.5)	8 (11)	111 (63.8)	0	3 (2.8)	6 (50)	355 (16.4)
Total n (%)	1403 (64.77)	191 (8.8)	201 (9.3)	73 (3.4)	174 (8.03)	4 (0.2)	108 (4.98)	12 (0.55)	2166 (100)

Table-II. Categories of Medicolegal Cases

DISCUSSION

In this study males (83.6%) were affected more than females (16.4%) with a ratio of 5.1:1 which is comparable with observations of Bhatti (5.9:1)² and Tajammul et al (5.1:1).⁵ Similar male preponderance was documented in other local studies by Marri⁶ as well as in international studies by Malik¹ and Timsinha et al.⁷ This is due to the fact that males are the breadwinners of the family and are more exposed to external environment thus making them more vulnerable to hazards of road, industry & violence in the developing world. On the other hand, females are spared as they tend to stay at home engaged in household chores.

In our study, majority of cases belonged to age group 21-30 years (37.6%) followed by 31-40 years (23.3%) constituting more than half of the total cases while there was decreasing incidence with increasing age. These findings are in line with those reported by Malik Y¹, Bhatti², Tajammul⁵ and Marri.⁶ The greater exposure to external environment, extrovert personality and more active life style with tendency to take undue risks make the youth more vulnerable to such hazards. Greater involvement of younger age group is of major concern as these people are the productive and most active members of our society. Besides high mortality rate, the injuries cause significant morbidity, long term physical and psychological disability for victims, families and societies.^{8,9} Moreover, the medical, legal and emotional costs of this violence impose an enormous burden on urban and rural hospitals.⁹

Blunt weapon injuries were most common in our study followed by firearm injuries (9.3%) and sharp weapon injuries (8.8%). All these cases of physical assault were observed mainly in males. This is consistent with other studies.^{1,2,5-10} Almost 90% male involvement in these cases is because they are more aggressive, emotional and provoked easily by any threat while females are introvert and shy and are less likely to pickup fights. The incidence of firearm injuries and sharp weapon injuries is considerably low in our study which is in accordance with other

studies from Pakistan^{2,5,8,10} but is in contrast to studies conducted in western world¹⁰ The study conducted in UK reported prevalence of 86.8% penetrating trauma in urban areas.¹¹ According to 2011 and 2010 local public health data, the annual count of firearm deaths and injuries in New York City exceeded 2000; there were 366 firearm fatalities, 999 firearm hospitalizations, and 691 firearm injury emergency department visits.¹² Studies from the United States and other developed countries reported firearms usage in more than 60% of all homicides, over 25% of all assaults, more than 35% of all robberies and almost half of all suicides.¹³ Illegal possession of guns, male gender, and youth has been well documented as risk factors for firearm injuries.^{2,9} Low reporting in our study can be attributed to the fact that firearm related morbidity and mortality show wide regional variations globally depending upon the accessibility of firearms, socioeconomic status and law and order situation of the region.⁹

In our study, maximum cases of sexual assault were observed in females (63.8%) as compared to males (36.2%). Our finding is consistent with worldwide trends. The incidence is 225 rapes per 100,000 women in South Africa, 58 rapes per 100,000 women in United States and 22,000 rapes a year in India.¹⁴ In Pakistan, the rape rate is 16.8 per 100,000 women with 10% being gang rapes according to 2013 National Crime Data report.¹⁴ This situation is quite alarming. Sexual violence against women is a violation of our cultural and religious norms and indicates degradation of socio-cultural and moral values.

Studies from neighboring country reported that majority of the medicolegal cases were of road traffic accidents^{1,7} which is contrary to our study. Low reporting of road traffic accidents in this study may be due to the minor nature of the injuries inflicted which do not require inpatient care or treatment and mutual settlement of matters among parties without involving law and order agencies. These observations are consistent with other studies.²

CONCLUSION

Blunt weapon injury is the most frequently reported medico-legal offense in Services Hospital, Lahore followed by firearm injury and sharp weapon injury. There is a male predominance in all forms of these medico-legal cases except sexual assault which is more common in females.


Medico-legal cases have to be dealt with due care and proper attention following the institution’s prevailing guidelines and instructions of Surgeon Medicolegal Punjab. Proper documentation, timely information, a methodical and thorough examination-including all relevant investigations and referrals, etc, is mandatory to see such cases through, successfully. Injuries can be prevented by proper education, awareness campaigns and strict implementation of law. In addition, improvement in health care facilities and post-traumatic care is of utmost importance in reducing the morbidity and mortality related to these injuries.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Mariam Arif	Prepared the proposal, data collection and compilation, manuscript writing	
2	Dr. Syed Hamad Rasool	Data collection and compilation, manuscript writing	
3	Dr. Syed M. Hammad Ali	Data collection, manuscript writing	