

Original Research Article

Profile of medico-legal cases registered at a tertiary care children's hospital

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ABSTRACT

Background: The aim of this study was to analyse the patterns, social factors and the clinical outcomes of medico legal cases in Delhi.

Methods: In this study, 238 medico-legal cases were studied at tertiary care centre.

Results: Out of 238 cases studied, 188(79%) were males and 58 (21%) were females and a majority of these cases were from the urban slum areas (53.78%). Majority of the medico-legal cases were due to routine medical examination for fitness of abandoned children's (26.89%) followed by poisoning (23.10%), trauma (16%), road traffic accident (8%), assault (13.33%). Most of the MLC cases were reported in casualty within 1 hour through PCR police. In this majority of the MLC cases were discharged after treatment (78.99%) and 2 children (4.72%) expired.

Conclusions: This study shows the prevalence of medico-legal cases in a tertiary care hospital. Majority of the cases were males and adolescents. There is an urgent need to focus more on this vulnerable age group. Moreover, there is a need of awareness on the part of treating pediatricians about these medico legal cases and to handle the victims empathetically and at the same time follow the legal procedures diligently as per the law of the land.

Keywords: Assault, Children, Medico-legal cases (MLC), Victim

INTRODUCTION

A medico-legal case is a case of injury or ailment where attending doctor after taking history and clinical examination of the patient thinks that some investigations by law enforcing agencies are essential so as to fix responsibility regarding the case. It is the responsibility of a registered medical practitioner to judge each and every case properly and in doubtful cases, it is mandatory to inform the police as required by law. This saves the doctor from unnecessary and needless allegations later.¹ Emergency/casualty department is the backbone of every

hospital as all the medical and surgical emergencies first report to emergency and also deals with a huge number of medico-legal cases which comprises accidents, assaults, burns, poisoning, suicide, homicide, any suspicious deaths, unknown children's and cases referred from police or court.² There is a paucity of information of medico legal cases in pediatric population in published scientific literature. The present study attempts to highlight the pattern and profile of medico-legal cases presenting in pediatric emergency /casualty department which may help agencies to devise strategies in order to reduce these incidences and child welfare.

METHODS

This study was hospital based observational study conducted for a period of one year at the paediatric emergency unit at the Lady Hardinge Medical College and associated Kalawati Saran Children's Hospital. Two hundred thirtyeight cases registered as Medico-legal cases in this period were analyzed, which included children from both genders up to the age of 18 years. A predesigned proforma was used to note down types of injuries and additional information like the demographic profile, age, mode of injury, time of occurrence, time period between injury and reporting to casualty and outcome were collected from victim's attendants and police.

RESULTS

Out of 238 cases studied 188(79%) were males and 58 (21%) were females and majority of victims (29%) from age group 16-18 years followed by 11-15 years (24.36%) and 1-5 years (21.42%). Most of the registered medico-legal cases in children belonging to single parent (23.33%), followed by nuclear family 65 (43.33%). Table 1 and 2 also shows out of 127 adolescent children, 40 (31.49%) were uneducated and 87 (68.50%) primary educated.

Table 1: Demographic profile of medico-legal cases.

Demographic details		n(%)
Sex	Male	188 (79%)
	Female	50 (21%)
Family status	Known	150(63%)
	Unknown	88(37%)
Type of Family (n=150)	Single parent	35(23.33%)
	Nuclear family	65(43.33%)
	Joint Family	50(33.33%)
Domicile	Urban	100 (42.01%)
	Urban slum	128 (53.78%)
	Rural	10 (4.20%)
Literacy status in >10 yr (n=111)	Illiterate	35(31.53%)
	Literate	76(68.46%)
Previous crime record		07(2.94%)

Table 2: Age wise distribution of medico-legal cases.

Age in years	Male	Female	Total (n=238)
<1	4(25%)	12(75%)	16(6.72%)
1-5	30(58.82%)	21(41.17%)	51(21.42%)
6-10	30(68.18%)	14(31.81%)	44(18.48%)
11-15	50(86.50%)	08(13.79%)	58(24.36%)
16-18	59(85.50%)	10(14.49)	69(29%)

Present study shows that routine medical examination for fitness of abandoned children was predominant cause in all medico-legal cases (26.89%) followed by poisoning (23.10%), trauma (16%), road traffic accident (8%), physical assault (7.14%) and sexual assault in 4.20% of cases (Table 3). Most of the poisoning cases were accidental (69.03%) in nature followed by suicidal (20.24%), assault/homicidal in 10.72%. The attempt to suicidal cases was more common amongst girls (66%).

Table 3: Profile of medico-legal cases.

Medico-legal cases	Male	Female	Total
Trauma	28(73.68%)	20(%)	38(16%)
Physical Assault	12(70.58%)	12(29.41%)	17(7.14%)
Sexual assault	04(40%)	06(60%)	10(4.20%)
Poisoning	30(54.54%)	25(45%)	55(23.10%)
Road traffic accident	16(76.19%)	05(23.8)	21(8.8%)
Fall	03(42%)	04(58%)	07(3%)
Burns	03(50%)	03(50%)	06(2.5%)
Drowning	05(40%)	06(60%)	10(4.2%)
Reptile bite	04(66.66)	2(33.33%)	06(2.5%)
Snake bite			
Unknown bite	01(50%)	01(50%)	02(0.84%)
Hanging	0	02(100%)	02(0.84%)
Routine medical examination for fitness of abandoned child /accused for custody	24(37.5%)	40(62.5)	64(26.89%)
Total	188(79%)	50(21%)	238

In our study 89 (37.39%) of the cases reported within one hour of injury and 71 (29.83%) reported between one to two hours. It was observed that majority of the victims were discharged from hospital after treatment (85.71%) that included referral to psychiatry department for suicidal and assault and other cases. While 1.68% of the victims had absconded, 5.04% of cases were referred to higher centre and death was noted in 2.06% of cases. Out of two expiries, one was severe head injury with multiple fractures due to accidental fall from 3rd floor and other one due to Lithium button battery ingestion by the infant, which were subjected for medico-legal autopsy. Out of sixteen brought dead children (6.72%), four had history of multiple episodes of seizures, three neonates had birth asphyxia and four had history of unknown substance ingestion and medico legal procedures were followed as per law.

DISCUSSION

There are hardly any published studies in pediatric population from India or even abroad. In present study, it

was observed that most of the victims were males (79%). Present findings are consistent with study conducted by Hussaini SN et al (males 74.03%), Yattoo GH et al (males 74.03%), Trangadia MM et al (males 72.77%).³⁻⁵ But this was conducted in adult population. The predominance of males over females may be attributed to their behaviour, and their indulgence in certain activities especially in the adolescent age group (driving without helmets, experimenting with alcohol or drugs, occasional violent activities etc.) and also more involvement in outdoor games which make them more vulnerable as compared to females. In the present study majority of victims (29%) belonged to age group 16-18 years followed by 11-15 years (24.36%) and 1-5 years (21.42%). The preponderance of adolescent age group is also probably due to their risk taking behaviour and indulgence in physical activities as described above. They make them prone to injuries and violence.^{6,7}

It was observed that nearly 95% of cases were from urban area and out of which cases from slums were 53.78%. This study was conducted in tertiary care hospital in which most of the recruited medico legal cases belonged to urban area, including urban slum. The studies which were conducted in the rural areas differ from the present study. There has been an increase in the population in Delhi in the last few years and more so in slum areas due to rise in migratory population especially the underprivileged. The population of urban slum are more vulnerable due to congestion, poverty, lack of education, awareness, poor infrastructure and lesser safety measures.⁸

In the present study, we observed that most of the medico legal cases are due to routine medical examination for fitness of abandoned children's (26.89%). As ours is largest pediatric hospital located in central Delhi, this area has a large number of hotels, restaurants and this hospital is closer to New Delhi Railway Station. So, more cases of child trafficking, child labour, kidnapping of the minors were reported. In the present study majority of the medico-legal poisoning cases were accidental (69.03%) in nature. Most of the poisoning due to accidental drugs ingestion was noticed in 1-5-year age group. In our study, we noted in children less than 5-year age group, common accidental poisoning were drugs, kerosene oil, detergent, mosquito oil ingestion. In suicidal poisoning, most common cases were due to drugs followed by toilet cleaner like phenyl ingestion.^{9,10} Out of a total of 10 cases of sexual assault 6 were females and 4 were males, with a male to female ratio of 2:3. All are registered under Protection of Children from Sexual Offences Act, 2012. Seven (2.94%) children were having previous crime record. Out of all the 7 children, 5 were involved in robbery. In detailed history, we find out some adult peoples group enforced these children for robbery.

Most of the medico legal cases reported in our casualty were through PCR police (47.05%), followed by parents (32.77%), NGO/social worker (16%), and unknown

(4.25%). Many road traffic accident cases were brought to casualty by unknown people. Majority of the medico-legal cases took place in afternoon and evening time between 12 p.m. to 6 p.m. (38.90%) because at this time of the day children are free from schools, working parents are out of their homes and children are under no supervision. Lesser number of medico-legal cases were reported in casualty in between 12 a.m. to 6 a.m. due to obvious reasons.

In this study, it was observed that majority of the victims (37.39%) reported within 1 hour of the incident followed by 29.83% of the victims attended within 1-2 hours of the incidence to the casualty. Similar findings were seen in a study conducted by Raju K et al.¹¹

It can be explained by urban people taking benefit of having tertiary care hospital in their close vicinity and also increased health awareness. The road traffic accidents were relatively less in our hospital as sometimes the cases were taken directly admitted to orthopedics or surgery department.

Majority of the victims were discharged from hospital after treatment (85.71%), while in 1.68% of the victims had absconded, 5.04% of cases were referred to higher centre and death was noted in 0.84% of cases.

Out of two expiries, one was severe head injury with multiple fractures due to accidental fall from 3rd floor and other one due to Lithium button battery ingestion by the infant which were subjected for medico-legal autopsy. Children who left against medical advice with their parents without discharge were most likely due to delay in discharge because medico legal admitted case need a lot of the paper work before discharge and till that time parents did not wait. In all the children who attempted suicide or were involved in suicidal or violent behaviour, were attached to department of Psychiatry for further management.

CONCLUSION

This study attempts to demonstrate the spectrum of medico-legal cases in a tertiary care hospital. Majority of the children were males and belonged to adolescent age group. These further highlight the fact that adolescent age group is vulnerable age group and they need lot of support from families, community and various organizations including health so as to have a more stress-free life. In the present study, maximum numbers of patients were discharged successfully after treatment. There is also need of more awareness amongst the treating pediatricians about dealing with these cases as they require careful handling apart from paperwork which are mandatory in these types of cases. Engaging medico-legal expert in a casualty or giving training to the medical officers to carry out medico-legal works safely and scientifically can definitely improve the proper

handling of these cases and save the doctors from harassment during litigation.

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