

DEATH DUE TO POISONING IN LAHORE: A RETROSPECTIVE STUDY.

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ABSTRACT

Introduction: Poison is a substance having deleterious effect on living system. The incidence of poisoning is increasing day by day and it is a major problem worldwide and in Pakistan also. Children are equally susceptible to poisoning as are adults. Keeping in view this scenario, the present study was designed to investigate prevalence of poisoning cases over a period of last two years (2015-2016) on the basis of types of poisons, age groups, gender, residency of victims, any suicide note and manner of poisoning by the scrutiny of autopsy cases of death due to poisoning presented in department of forensic medicine & toxicology, KEMU, Lahore.

Methods: The data was extracted from autopsy reports in the department of Forensic Medicine and Toxicology KEMU, Lahore. Out of 1533 cases in last two years, 62 cases of poisoning were found. All those 62 cases of poisoning were included and all other cases where death was due to causes other than autopsy were excluded.

Results: Most of reported cases were accidental (62.9%) while 19.4% were suicidal and 17.7% were homicidal. 61.3% cases were of males while 38.7% cases were of females. There were 69.3% cases in age group of 20-39 years. In none of the case any suicidal note was found.

Conclusion: Most of the deaths due to poisoning was revealed to be accidental. Males were predominantly more affected by poisoning as compared to the females. Death due to poisoning was prevalent in 20-39 years age group.

INTRODUCTION

Poison can be defined as a material having an imminent deleterious property rendering it capable of pulverizing life by whatever route it is taken into the body. It may be a material which when administered into the body or applied on the surface, impairs health and annihilates life regardless of mechanical or direct thermal application. According to WHO, annually 3 million cases of acute poisoning occurred out of these 220,000 lead to death. ¹ Of these 90% of lethal poisoning occur in underdeveloped countries, especially among people having agriculture as their occupation. ² The increasing incidence of poisoning from intentional, accidental, environmental or occupational exposure is a major problem worldwide. The type of poison used for intentional self-poisoning varies greatly by region. Pesticides are used for poisoning in rural areas whereas medicines are used greatly in urban areas. Developments in the technology and social media have resulted in easy availability of many drugs and various dangerous chemical materials in the society. These dangerous chemical materials pose a major threat due to their harmful effect, the wide- ranging use in medicine and agriculture. Drugs and insecticides are the most commonly used agents causing the massive incidence. Whether intentional or accidental, it is an easy

availability of these substances that significantly increases the risk. Poisoning with the pesticides account for about 1/3 of world's suicides. ⁴ Among the children, the commonest culprits include household chemicals, kerosene, drugs, pesticides and garden plants. ^{3,4} Poisoning due to drugs and chemicals is affected to a great extent by population's cultural and socioeconomic status.

SIGNIFICANCE OF STUDY

In view of above brief description, this retrospective descriptive study is done to observe the incidence of poisoning in Lahore city to advice about the preventive measures that can be implemented to reduce the risk of death due to poisoning.

AIMS AND OBJECTIVES

- ▶ To observe the incidence of poisoning in Lahore city.
- ▶ To advise about preventive measures.

MATERIALS AND METHODS

It is a retrospective descriptive study carried out at department of Forensic Medicine and Toxicology KEMU, Lahore. The study duration was from May 2017 to Aug 2017. All the cases on scrutiny of record of

autopsies conducted during January 2015 - December 2016 where death was due to poisoning were included in the study and all other cases were excluded.

RESULTS

There were total 62 cases where death occurred due to poisoning, out of these 38 (61.3%) were males and females were 24 (38.7%) as evident from table no.1. The majority of the cases (40.3%) were found in age group of 20 to 29 years followed by (29%) in age group of 30 to 39 years as depicted in table no.2. In the present study, it is observed that most of people who succumbed to poisoning were from low socio-economic status and majority of these (62.9%) consumed poisons accidentally followed by (19.4%) suicidal cases as shown in table no.3. Morphine was the most common poisons (19.4%) as evident from table no.4. it is also observed from table no. 5 that most of victims (80.6%) belonged to urban areas. There was no reported case where suicidal note was found.

Table No. 1: Gender Wise Distribution

Gender	Frequency	Percent
Male	38	61.3
Female	24	38.7
Total	62	100

Table No. 2: Age Wise Distribution

Age groups	Frequency	Percentage
0 to 9	2	3.2
10 to 19	7	11.3
20 to 29	25	40.3
30 to 39	18	29.0
40 to 49	5	8.1
50 to 59	3	4.8
60 and > 60	2	3.2
Total	62	100.0

Table No. 3: Manner of Poisoning

Manners of poisoning	Frequency	Percentage
Accidental	39	62.9
Homicidal	11	17.7
Suicidal	12	19.4
Total	62	100

Table No. 4: Type of Poisoning Substance

Type of poisoning substance	Frequency	Percent
Alcohol	8	12.9
wheat pills	7	11.3
Carbofuran	2	3.2
Azepams	9	14.5

Metoclopramide	1	1.6
Dextromethorphan	6	9.7
Chloroquine	2	3.2
Pheniramine	5	8.1
Morphine	12	19.4
Amitriptyline	1	1.6
Ketamine	1	1.6
Laudanosine	1	1.6
CO	1	1.6
Corrosives	1	1.6
Metallic	1	1.6
Acetaminophen	1	1.6
Lidocaine	3	4.8
Total	62	100.0

**PIE CHART
TYPES OF POISONS**

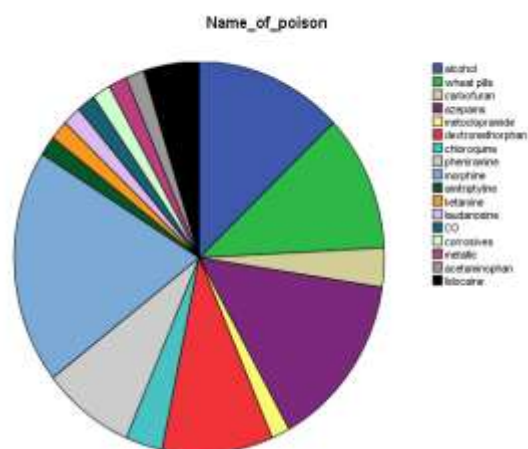


Table No. 5: Area Wise Distribution

Area	Frequency	Percent
Urban	50	80.6
unknown residency	12	19.4
Total	62	100.0

Table No. 6: Suicidal Note

Present/Absent	Frequency	Percentage
Absent	62	100
present	nil	

DISCUSSION

Poisoning is notorious for causing most of deaths in Pakistan and is also a most important public health issue worldwide. According to present study, people belonging to age group 20-39 years were the most common victims who are also the most active and productive members of every society and it is supported by other researches in Pakistan and internationally.^{5,6}

This study highlights that most of the deaths are due to drug abuse.⁶ In the present study, after accidental poisoning it is suicidal one that is taking attention and WHO estimated 873,000 suicides worldwide in 2002.⁷ According to WHO, the pesticides are the most common cause of suicides worldwide at this time while according to results of present study, morphine is the leading cause followed by pesticides.⁸ The rapid development of applied chemistry in industry, agriculture and household use are major causes of poisoning thus preventive measures taken for worker protection in industry, vigilance at home to avoid negligence and the preventive measures taken by government to combat environmental health issues are the means to reduce incidence of poisoning.^{9,10}

CONCLUSION

The greater incidence of poisoning cases encountered may be due to the easy and unchecked availability of the drugs. In the present study, most of the victims belonged to low socio-economic background and were drug addicts. The poisoning cases were more marked in the age group 20-39 years that are socially active members of our society.

SUGGESTIONS

Drug abusers should undergo psychotherapy. In recent times, television channels depicting graphic content in dramas, movies and news contribute to the misuse of drugs. Drug abuse can be controlled by exercising strict control over its easy availability and raising awareness about its dangerous effects.

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