

Original article:

Study of postmortem cases of acute poisoning in Grant Government Medical College, Mumbai.

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Abstract:

Introduction: The present scenario of globalization, urbanization and industrialization is creating lot of stress on individuals in particular as well as on the society in common. Persons who are not able to sustain these stressful situations are the major victims of either suicidal or accidental poisonings. During the study period, in 110 cases of poisoning autopsy was done.

Materials and Methods: This hospital based retrospective cross sectional study acute poisoning was approved by Institutional Ethics and Research committee of Grant Government Medical College, Mumbai and carried out in the department of Forensic Medicine and Toxicology, Grant Government Medical College and JJ group of Hospitals, Mumbai. This is a comprehensive study of two years duration from 1/09/2011 to 1/09/2013. Proformas for the study designed after going through the available literature and consulting experts in the field of medical sciences. This comprehensive proformas contains demographic and medico-legal aspects of poisoning cases. Questionnaire was tested on a pilot basis on five cases as to ascertain whether it needs modification in the light of difficulties encountered. Necessary modifications were done.

Results: It was observed that in the present study maximum cases (54.6%) were from lower class followed by 39.09% from lower middle class. Few cases (6.37%) were from upper and upper-middle class.

Conclusion: In conclusion, present study helps to interpret the trends of poisoning in this region.

Keywords: globalization, urbanization

Introduction:

The present scenario of globalization, urbanization and industrialization is creating lot of stress on individuals in particular as well as on the society in common. Persons who are not able to sustain these stressful situations are the major victims of either suicidal or accidental poisonings. During the study period, in 110 cases of poisoning autopsy was done. Thereafter all the details of the findings of individual examination were noted and statistically analyzed. Aim of our study was to Study of acute poisoning cases admitted in Grant Government Medical College , Mumbai.¹

Materials and Methods

This hospital based retrospective cross sectional study acute poisoning was approved by Institutional Ethics and Research committee of Grant Government Medical College, Mumbai and carried out in the department of Forensic Medicine and Toxicology, Grant Government Medical College and JJ group of Hospitals, Mumbai. This is a comprehensive study of two years duration from 1/09/2011 to 1/09/2013. Proformas for the study designed after going through the available literature and consulting experts in the field of medical sciences. This comprehensive proformas contains demographic and medico-legal aspects of poisoning cases. Questionnaire was tested on a pilot basis on five

cases as to ascertain whether it needs modification in the light of difficulties encountered. Necessary modifications were done.

Study Design:Hospital based retrospective cross sectional study;

Study Settings:Grant Government Medical College and Sir JJ group of Hospitals, Mumbai

Study Population: All deaths in admitted cases of clinically diagnosed acute poisoning that were autopsied and All cases of acute poisoning that were brought dead and autopsied

Duration of study:Two years

Sample size:All cases of acute poisoning which were autopsied in the duration of study

Inclusion Criteria:

1. Cases of acute poisoning died during treatment and autopsied at parent institute and sent for medicolegal post mortem examination.
2. The deaths occurred in private hospital due to poisoning and sent for medicolegal post mortem examination at parent institute.
3. Brought dead cases of acute poisoning and sent for medicolegal post mortem examination.

Exclusion criteria:

1. Unidentified, decomposed bodies and medicolegal post-mortem cases done on spot without alleged history of acute poisoning.

Materials:

1. Medico legal cases register of casualty.
2. Case papers from concern departments.
3. Inquest.
4. Post mortem reports.
5. Chemical analysis report.

Methods:

All the admitted and death cases of acute poisoning diagnosed by physicians and brought dead cases of acute poisoning confirmed by police or at autopsy were included in the present study.

Table 1: Casualty poisoning cases

YEAR	2011	2012	2013
Total EPR cases	3530	3435	2100
Poisoning cases	160	115	103
Percentage	4.53	3.35	4.90
Mortality in poisoning cases	54	40	16
Percentage	33.75%	34.78	15.53

Table 2) Mortality in casualty cases

Total EPR cases (SEPT 2011- SEP 13)	POISONING	PERCENTAGE
6870	378	5.5%
Mortality (n-378)	110	29.1%

Discussion:

The frequency of occurrence of poisoning in a particular age group was compared with available literature and it was observed that in the present study maximum number of cases (29.09%), were in the age group of 31 to 40 followed by 26.36% cases in 21 to 30 years age group. Chavan KD et al.(57), Chaudhary BL et al.(3), Dash SK et al.(4) and Singh TB et al.(5) with 50.63%, 29.5%, 40.5% and 38.47% cases respectively in age group 21-30 years. This may be due to social or familial problems as this age group is suffering from all types of stress and strain i.e. domestic, economic, unemployment, educational, dowry, marital conflicts, failure in love etc.

Religion wise comparative analysis of the present study with reviewed literature revealed that in the present study highest number of poisoning cases were found in Hindus and similar finding was observed by Sinha US et al.(6), Chaudhary BL et al. (3) and in study done by Kanchan T (7) with 84.91% Cases, 51.4% cases and 86.86% cases respectively which were Hindus. This may be due to fact that major population of India is Hindu.

In our study 50% cases were from urban area and 49.09% cases were from rural area. This finding is different from Khurram et al. who reported 72.11% cases from urban area.

A comparative analysis of the occupation of the victims of poisoning in the present study was done with that of available literature. In the present study the number of poisoning cases were higher in labourers (30.9%), students (20.91%) and farmers (14.55%). This finding is consistent with Bhatukule et al.(64) who reported it to be in agriculturist and labourers working in agriculture sector or in construction work with 8.7% and 89.2% cases respectively.

It was observed that in the present study maximum cases (54.6%) were from lower class followed by 39.09% from lower middle class. Few cases (6.37%) were from upper and upper-middle class.

Conclusion:

In conclusion, present study helps to interpret the trends of poisoning in this region.

References:

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