Original Article

Clinical profile of acute poisoning cases

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Abstract

Introduction: Due to rapid development in the field of science and technology and vast growth in the industrial and agricultural sector, the incidence of poisoning is very high in our country. Death as a reason of poisoning/drug abuse is of enormous medical, legal and social significance. Poisoning due to organophosphorous compound has been very common in our country. The incidence of death due to poisoning is very high has steadily increased in the recent past and has reached a level. Where it can called 'a social calamity'. **Aims and Objectives:** To study the types, manner of poisoning and clinical presentation, mortality in different poisoning. **Materials and Method:** The patients who were admitted at GMC Aurangabad with history suggestive of acute poisoning to the department of medicine were considered for evaluation. The study has been carried out for One year. A detailed history and clinical examination was carried out according to proforma. Stomach wash given with 2% $KmnO_4$, Stomach samples were send for medicolegal purpose. **Summary and Conclusion:** Total number of patients taken for study are 300 patient. Out of which 190 male 110 female. The incidence of poisoning was common in young married individual, rural area and common in joint family. The common mode of poison is by oral route. The common cause of poisoning are marital disharmony, extramarital relation, impotency, alcoholic husband and quarrel with parents.
Keywords: Acute Poisoning, Organophosphorous Compound Poisoning.

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INTRODUCTION

Due to rapid development in the field of science and technology and vast growth in the industrial and agricultural sector, the incidence of poisoning is spreading like the wild fire. Death as a reason of poisoning/drug abuse is of enormous medical, legal and social significance. The pattern of poisoning within a country depends on a variety of factors such as availability of various poison, SOCIOECONOMIC status of population, religious and cultural influences and drug prescribing pattern. Poisonining due to organophosphorous compound has been very common in our country. The incidence of death due to poisoning has steadily increased in the recent past and has reached a level. Where it can called 'a social calamity'[1]For self poisoning the commonest substances abused are copper sulphate, barbiturate or certain locally growing poisonous herbs.[2] Sucidal poisoning is the commonest type of poisoning among the adult. The psychiatric evaluation and treatment become an essential part of these patients.

AIMS AND OBJECTIVES

1. To study the types, manner of poisoning.
2. To study clinical presentation, mortality in different poisoning.

MATERIAL AND METHODS

The present study was carried out in the Department of Medicine Government medical college and Hospital Aurangabad during January 2011 to December 2011. No definite history, Patients who were admitted with cardiopulmonary arrest in casualty, Suspicious history of poisoning which could not ascertained by clinical examination, Patient of food poisoning, Animal bite poisoning.

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OBSERVATIONS

The study carried out at Government Medical College and Hospital Aurangabad in the Department of Medicine during 01.01.2001 to 31.12.2001. The study comprises 300 cases of acute poisoning admitted at Government Medical College and Hospital, Aurangabad for the treatment of various poisoning.

Table 1: Age and Sex wise incidence

Age group	Male	Female	Total	Percentage
13-19 yrs	50	30	80	26.66
20-29 yrs	104	47	151	50.33
30-39 yrs	20	15	35	11.67
40-49 yrs	10	16	26	08.67
50-59 yrs	04	02	06	02.00
60 yrs and above	02	00	02	00.67
Total	**190(63.33%)**	**110(36.67%)**	**300**	**100.00**

Three hundred cases of acute poisoning were studied of which 190 (63.33%) were male and 110 (36.67%) were female M:F ratio 1.72:1. The youngest patient was 13 years old and eldest patient was of 67 years old. Maximum number of patients were belongs to age group of 20-29 years i.e. 151 (50.33%). Between 13-19 years of age group 80 (26.66%) of patients. There were 2 (0.67%) patients in the age group of 60 years and above. The table showing the incidence of poisoning mainly in younger population.

Table 2: Table showing intention of poisoning

Intention	Male	Female	Total	Percentage
Suicidal	177	101	278	92.67
Accidental	12	07	19	06.34
homicidal	01	02	03	01.00

Out of 300 cases 278 (92.67) had poisoning with the intention of suicide only 19 (6.34%) cases were accidental poisoning. There were three cases of homicidal poisoning in the study.

Table 3: Table showing educational status of the patients

	Male	Female	Total	Percentage
Professional graduates	00	01	01	00.33
Graduates in other subjects	01	04	05	01.67
Higher secondary school	22	10	32	10.67
Xth std.	20	09	29	09.67
Below Xth std.	41	27	68	22.67
Primary school or literate	47	23	70	23.33
Illiterate	59	36	95	31.6

Incidence of poisoning was found found maximum in illiterate patient 95 (31.6%). There was 70 (23.33%) cases who had primary school education and were literate. 68 (22.67%) cases had professional qualification. 32 (10.67%) cases had higher secondary school educational status.

Table 4: Table showing the route of poisoning

Route	No. of patient	Percentage
Oral ingestion	293	97.67
Inhalation	04	01.33
Absorption through skin	03	01.00

Maximum number of patients had route of poisoning as oral ingestion i.e. 293(97.67%). While 4(1.33%) through inhalation and 3 cases by absorption through skin.

Table 5: Table showing the causes of poisoning

Causes	No. of cases	Percentage
Family conflict	228	76.00
Educational failure	24	08.00
Chronic illness	22	07.33
Financial loss	07	02.33
History unable to obtain	20	06.67

The above table showing on maximum occasion cause of suicide was family conflict (76%). Other causes included educational failure in 24 (8%), chronic illness in 22 (7.33%) financial loss in 7 (2.33%) cases. In 20 cases history could not be obtained.

SUMMARY AND CONCLUSION

Present study includes cases of acute poisoning admitted under Department of medicine. Government medical college and hospital Aurangabad, from 01/01/2011 to 31/12/2011. 300 patients were taken for study. There were 190 males [63.33%] and 110 females [36.67%]. Male to female ratio is 1.7:1 showing male predominance. The incidence of poisoning was found maximum in 13-39 years of age. This indicate common in young individuals. Ingestion was the commonest route of poisoning 293 [97.67%] cases. The incidence of poisoning was maximum against individual of rural background [71.34%] and were belonging to agricultural and middle class families as compared to urban [28.66%] cases. Maximum incidence of poisoning was found among married population [76%]. Incidence of poisoning more in joint family [65.67%]than nuclear family [32%]. This may be due to the family conflict between the family members. Maximum incidence of poisoning was found in cultivator, agricultural labour and housewives. Sucidal consumption was observed in 278 [93.67%] patients, accidental poisoning in 19 [6.34%]patients and 3 cases of suspected homicidal poisoning were detected. Incidence of poisoning was low in higher educational status, where as high in illiterate and below tenth standard. Stressful situation was found to be more in males than females. High incidence of agro chemical poisoning is due to free availability of these poisons in our agriculture based area. So it is important to restrict the availability of potent agro chemicals. However strict control of sale and distribution should be attempted. Education of the community regarding proper storage of agro chemical and how to

reduce the incidence of poisoning. Basic treatment given at primary health center is more helpful so medical and paramedical personnel persons should be trained.

DISCUSSION

Clinical profile of acute poisoning admitted in GMC Aurangabad was carried out during 01.01.2001 to31.12.2001 it comprises 300 cases of acute poisoning. Out 300 patient 190 males [63.33%] and 110 females [36.67%]. Male: Female ratio being 1.7: 1 showing male predominance. This may due to stress and strain and also occupational hazard to which males are more exposed. The age incidence is maximum in age group 20-29 (50.33%) years mean age 24 years. As this is more active group and they are victim of urbanization and their failure in getting adjusted with issue arising out of urbanization. Between age 13-19 years of age group incidence is (26.67%).The possible risk factors are failure at school, failure love, conflicts with parents and predominance of emotional instability. Agarwal *et al* (1994), Siwach *et al* (1995) observe male dominance male: female ratio in their study 1.6:1 and 2:1 respectively. the present study matches with these findings. Siwach *et al* (1995), Tondon *et al* (1996) found 78% and 61.8% were the case of poisoning in the age group 15-30 years. These finding matches with the present study. Singh *et al* (1997) find the acute poisoning is commonest between age 21-30 years, this finding is in accordance with present study.

Intention

278 (92.67%) cases had consumed poison with the intention of suicide. Siwach *et al* (1995) and Lakshman *et al* (1988) both study shows same result.

Educational status

Acute poisoning was observed mainly in illiterate patients same observed in Siwach *et al* (1995).

Route of poisoning

Maximum number of patient had oral ingestion as the commonest route of poisoning. Mutalik *et al* (1962), Balani *et al* (1968), Samal *et al* (1989) has also observed oral ingestion as a common route of poisoning.

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