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Original Research Article

Sociodemographic profile of pediatric poisoning cases

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ABSTRACT

Background: Poisoning is one of the commonest cause of emergency hospital admission in children. The accidental poisoning is seen more commonly in toddlers and intentional poisoning is seen in adolescents. Rapid globalization and increased stress has increased the risk of suicidal poisoning. The accidental poisoning can be reduced by proper education to parents and by keeping poisonous substances out of reach of the child.
Methods: The study was carried out over 18 months. Sociodemographic profile of pediatric cases was studied in department of pediatrics at Rajarajeswari medical college and hospital. Descriptive study analysis was done.
Results: During 18 month study period, 34 cases were analysed. The incidence was found to be 1.64%. Male:female ratio was found to be 1:1.6. Majority belonged to upper lower class and majority were from urban class.
Conclusions: The importance childhood poisoning with its association with socio-demographic factors were studied and intervention were done.

Keywords: Pediatirc poisoning, Sociodemographic factors

INTRODUCTION

Poisoning is a global problem. Poison is a substance which if introduced in the living body will produce ill health or death. Poisoning both accidental and intentional is a significant contributor of morbidity and mortality throughout the world. According to WHO, 3 million acute poisoning cases with 2,20,000 deaths occur annually. Acute poisoning forms one of the commonest cause of emergency hospital admission. Accidental pattern of poisoning in a region depends on variety of factors, such as availability of poison, socio-economic status of population, religious and cultural influences and availability of drugs.[1]In India, while most commonest problem remains those related to infectious diseases and malnutrition, accidental poisoning is one of the important emergencies.[2] Poisoning is also third most common emergencies of pediatrics leading to high social and economic burden.[3] In accidental poisoning host factors are young age, male sex, curious and impulsive personality.[4,5]

METHODS

It was hospital based cross sectional study. The study was conducted at Rajarajeswari medical college and hospital from 1st December 2017 to 31st may 2019 of total 18 months.

Inclusion criteria

Patients admitted in the age group of 6months -18years with history of poison consumption.

Exclusion criteria

Age group less than 6 months, idiosyncratic reactions to drugs and food poisoning.

Statistical analysis

Data was entered into Microsoft excel data sheet and was analysed using SPSS 22 version software. Descriptive analysis was done. All the cases with history of consumption was poison admitted in the hospital were selected. Detailed history including socio-demographic factors age, sex, socio-economic status, place of residence were collected and history related poison and types, symptoms were considered. Socio-economic status was calculated based on modified Kuppuswamy classification which included occupation, income and education.

RESULTS

During the study period, total of 34 cases were analysed and out of them, prevalence was 1.6%. Age distribution <5years was 47% (n=16). 6-10years was 14.7% (n=5), 11 to 15years was 23.5% (n=8) and 16 to 18 years was 14.7% (n=5). This showed less toddlers and preschool children were involved more in accidental poisoning (Table 1).

Table 1: Age distribution.

Age	n	Percentage
<5yrs	16	47.1
6-10yrs	5	14.7
11-15yrs	8	23.5
16-18 yrs	5	14.7

Females outnumbered males. Females accounted for 61.8% (n=21), while males accounted for 38.2% (n=13). (Table 2). Sex ratio for male to female was 1:1.6. In this study, majority belong to upper lower class accounting to 38.2% (n=13) followed by lower middle class with 32.3% (n=11), lower class was 17.6% (n=6) and upper middle was 11.7% (n=4) (Table 3). Urban population was more involved (61.8%) (n=21) than rural population (38.2%) (n=13) (Table 4).

Table 2: Sex distribution.

		Frequency	Percent
Sex	Female	21	61.8
	Male	13	38.2
	Total	34	100.0

Table 3: Socioeconomic status distribution of cases.

		Count	Percentage
Socioeconomic status	Lower	6	17.6%
	Lower middle	11	32.3%
	Upper lower	13	38.2%
	Upper middle	4	11.7 %
	Total	34	100.0%

Table 4: Residence distribution of cases.

		Count	Percentage
Residence	Rural	13	38.2%
	Urban	21	61.7%
	Total	34	100.0%

DISCUSSION

Poisoning is a global problem and one of medical emergencies in hospital admission. It constitutes 0.64-11.6% of total pediatric admissions and is responsible for 0.6% of all deaths during occur in childhood.[6] Acute poisoning frequently (90%) occur in the household and the substances causing poisoning are often domestic products and drugs.[7] In this study, prevalence was 1.6% similar to a study done by Chatterjee B et al, in 1981 in Calcutta with prevalence of 1.98% and study done by Randev S et al, studied 263 cases with prevalence of 1.3%.[8,9] In this study most common age group was less than 5 years accounting to 47.1%. Out of 34 cases 21 (61.8%) were female and 13 (38.2%) were male. The ratio of female to male is 1.6:1. In study done by Randev S et al, they studied 263 cases, out of which 125 were female and 138 were male; male:female ratio was 1.1.[9] In this study it showed female preponderance. The 67% 0f cases belonged to urban population in this present study.

In present study, majority belonged to upper lower class in is in par with studies done by Gupta SK et al, studied 995 cases retrospectively in Delhi Randev S et al, and Andiran N et al.[9-11]

CONCLUSION

Incidence of poisoning was 1.6% was seen more in age group less than 5 years (47.1%). Poisoning cases was more seen in female population compared to male with sex ratio male to female was 1:1.6. Poisoning was seen more in urban population belonging to upper class. Preventive measures were suggested to the population and public health education was given to the parents so that necessary precautions were taken.

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