A RETROSPECTIVE STUDY OF PROFILE OF DOMESTIC ACCIDENTS IN CHILDREN FROM A TERTIARY CARE CENTER
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ABSTRACT: AIMS AND OBJECTIVES: To determine the causes and outcome of domestic accidents in children. METHODOLOGY: Data of Children admitted during 2 year period, who met the inclusion criteria were collected from the case records - demographic details, socioeconomic status, type of poisoning and the outcome was tabulated and analysed using appropriate statistical methods. RESULTS: 94 children sustained one or more domestic injuries. Most of them were females, 71.3% were in the age group of 1-5 years and from lower middle class (36.2%). Common type of domestic injuries was due to chemicals and insecticide poisoning (19.15%), kerosene poisoning (17.1%), burns and scalds (14.2%). The outcome of most of the children with domestic accidents were non-fatal (96.8%) but 1% resulted in death and 1% had sequelae. KEYWORDS: Age, Type of Poisoning, Socio Economic Status, Outcome.
Data of Children who met the inclusion criteria were collected from the case records. Data included demographic details, SES, type of poisoning and the outcome. This data collected was tabulated and analysed using appropriate statistical methods. Ethical committee clearance also taken.

RESULTS: In the present study conducted in Chettinad hospital in 2 year period, 94 children sustained one or more domestic injuries with a incidence rate of 8.6. We observed that most common type of domestic injuries was due to chemical and insecticide poisoning (19.15%), kerosene poisoning (17.1%), medications (10%) burns and scalds (14.2%) fall from height (9.6%), bites and sting poisoning (8.5%) showed in [Table 4].

In this study slight female preponderance was observed. Out of 94 study participants, 48.9% were male and 51.1% were female. Majority of the children (71.3%) were in the age group of 1-5 years [Table 1] and most of them belong to lower middle class (36.2%) [Table 2]. The outcome of most of the children with domestic accidents were non-fatal (96.8%) but 1% resulted in death and 1% had hypoxic ischemic sequelae secondary to podophyllin poisoning [Table 3].

| Parameter | Frequency | Percent |
|-----------|-----------|---------|
| I. Age Groups | | |
| <1 year | 5 | 5.3 |
| 1 to 5 years | 67 | 71.3 |
| 6 to 10 yrs | 15 | 16.0 |
| 11 and above | 7 | 7.4 |
| II. Sex | | |
| Male | 46 | 48.9 |
| Female | 48 | 51.1 |

Table 1: Descriptive analysis of Socio demographic variables of study group (N=94)

| SES | Frequency | Percent |
|-----|-----------|---------|
| Lower Middle | 34 | 36.2 |
| Upper Middle | 21 | 22.3 |
| Upper Lower | 20 | 21.3 |
| Lower | 15 | 16.0 |
| Upper | 4 | 4.3 |
| Total | 94 | 100.0 |

Table 2: Descriptive analysis of SES of study group (N=94)

| Outcome | Frequency | Percent |
|---------|-----------|---------|
| Good | 91 | 96.8 |
| HIE Sequalae | 1 | 1.1 |
| Sequalae | 1 | 1.1 |
| Death | 1 | 1.1 |
| Total | 94 | 100.0 |

Table 3: Descriptive analysis of Outcome of study group (N=94)
Table 4: Descriptive analysis of Diagnosis of study group (N=94)

| Diagnosis                        | Frequency | Percent |
|----------------------------------|-----------|---------|
| Chemical and Insecticide Poisoning | 19        | 19.15   |
| Kerosene Poisoning               | 16        | 17.1    |
| Medications                      | 10        | 10.1    |
| Burns and scalds                 | 13        | 14.2    |
| Falls and Hits                   | 9         | 9.6     |
| Bites and Stings Poisoning       | 8         | 8.5     |
| Un Known Bite                    | 8         | 8.5     |
| Mosquito repellents              | 5         | 5.3     |
| Drowning                         | 5         | 5.4     |
| Un Known Poisoning               | 1         | 1.1     |
| Total                            | 94        | 100.00  |

DISCUSSION: In our study the most common age group affected was 1-5 years, Anitha Nath study, also says 49-60 months were the commonest age group, In Akbar et al study, children of age <12 years were affected most, Choudhari et al. and Matanhire DN showed under 5 age group are at risk, In Tandon et al. study 4-9 years group was affected.

In our study there was slight female preponderance was observed, but in various studies by Tandon, Choudhari et al., Matanhire, Akbar et al., and Anitha Nath, there was male preponderance.

Incidence was found to be 8.6 in our study, where as in a study conducted by Tandon, it was 14.2. In Our study, commonest cause of domestic accidents was due to chemical and insecticide poisoning as in Akbar et al. study where as in Tandon's study, Choudhari et al Study, Anitha Nath's, and Matanhire study, Falls were the commonest domestic accident.

Most of them in our study hailed from to lower middle class but in a study by Matanhire socioeconomic factors did not associate significantly with the occurrence of accidents.

The outcome of most of the children with domestic accidents in our study were non-fatal (96.8%) but 1% resulted in death and 1% had hypoxic ischemic sequelae secondary to podophyllin poisoning. In Tandon's study, mortality was high among burns case followed by falls, Anitha Nath in here study showed in most of the cases outcome was not fatal.

CONCLUSIONS: Our study concludes that domestic accidents are more common in children and more so among females. The reasons may be the higher amount of time spent at home, greater participation in daily home activities and parent’s negligence. Our study reported that chemical and insecticide poisoning was most common cause and in majority of cases the outcomes were non-fatal, with only 1% mortality.

Accidents among children can be prevented to a large extent provided the parents are educated regarding the preventive measures to be adopted. Parents can play a lifesaving role in protecting children from injuries. Protect the ones you love is dedicated to sharing information on the important steps parents can take to make a positive difference.
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