PAEDIATRIC POISONING IN RURAL SRI LANKA

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Objective: To identify incidence of poisoning in paediatric population and the pattern of presentation of paediatric poisoning in a rural Sri Lankan province.

Methods: This is a nested sub-study of a larger prospective epidemiological study that has been carried out in all 56 hospitals in the North Western Province of Sri Lanka for 24 consecutive months from March 2011 to February 2013. Details of all paediatric patients ≤ 12 years of age admitted to these hospitals were reviewed. Both demographic and clinical data were extracted from a cohort database maintained by the South Asian Clinical Toxicology Research Collaboration (SACTRC).

Results: A total of 602 children were hospitalised following poisoning during the study period. Age adjusted incidence of poisoning in the study area was 122 per 100,000 inhabitants ≤ 12 years of age. Incidence in males was higher than in females (126 vs. 119 per 100,000). There was a significant different ($p<0.0001$) of poisoning between 1-5 years old and those aged 6-12 (202 vs. 64 per 100,000). The median age was 4 years (IQR=7-2) and none of them died. Three hundred and two patients were discharged while 204 were transferred to referral hospitals. Ninety four patients left against medical advice and the outcome details of two patients were missing from records.

The circumstances of poisoning exposure was mentioned only in 107,101 (94%) cases were accidental. Remaining six cases were self-poisoning and patients were 7 to 12 years old. Kerosene (n=161, 27% of all patients) was the most common agent causing poisoning and the incidence of kerosene poisoning was 33 per 100,000.

Other common poisonings were plant materials (n=157, 26%) pharmaceuticals (n=123, 20%), pesticides, herbicides (n=63, 10%) and other chemical substances (4%). In 13% (81) of all patients, the causative agent was not identified.

In most cases, treatment was non-specific, including decontamination and supportive therapy. Activated charcoal, gastric lavage, forced emesis were used for the gastrointestinal decontamination. Twenty one patients who poisoned with oleander, organophosphate and carbamate were treated with Atropine.

Conclusion: Incidence of poisoning is lower and predominantly accidental compare to adult poisoning. There were no fatal poisonings in paediatric age group. Younger children (1-5 years of age) were more likely to be poisoned and kerosene was the most common agent of poisoning. Safe storage practices of kerosene, medicines and other chemicals should be encouraged. Since patients were predominantly treated at the peripheral hospitals, facilities in the rural hospital should be improved.