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Research Article

PATTERN OF ACUTE POISONING IN CHILDREN¹Dr. Shumaila Chaudhry, ² Dr. Marryam Kaleem, ³ Dr. Irum Mukhtar¹Government THQ Indus Hospital Manawan Lahore²Government THQ Indus Hospital Manawan Lahore³Basic Health Unit 28/sp District Pakpattan**Abstract:**

Objectives: The aim of this research is to conclude the various factors which are engaged in serious intoxication in children. This work also concludes the time duration between the intake of the toxic agent and report of patient at clinic with documentation of the results.

Methodology: The research work was carried out in the Government THQ Indus Hospital Manawan Lahore and BHU Pakpattan in the duration from November 2017 to May 2018. One hundred patients with intoxication and kerosene oil poisoning is maximum than opiate and organophosphorus were included in the research. Their treatment history, time duration between the eating of the disease agent and report at the clinic and hospital results after treatment were documented.

Results: Most of the patients were less than 6 year of age. Sixty nine percent participants were male and thirty one percent were the female participants. kerosene oil intoxication was the most common cause of this disease. Opiate was forming its seventeen percent and organo-phosphorus was taking part in fifteen percent sufferings. The patients from city areas were 53% and patients from the non urban areas were 47%. About 47% patients were taken to the hospital within one hour after the start of disease. Thirty eight percent patients were brought to the hospital from one hour to six hour after the disease and twenty two percent patients were admitted after six hours. The patients who got complete recovery from hospital were 94% but remaining died during admission in the hospital.

Conclusion: AP (acute poisoning) is very dangerous disease which comes under emergency. This disease has a very great impact on the unhealthy condition and can lead to death the small age patients. The most important victim of the serious intoxication among the children is toddlers. Organo-phosphorus, opiate and different types of drugs are the cause agents of this disease. The medical outcomes are not well in the patients who are suffering of corrosives poisoning.

Key Words: AP, Toddlers, Kerosene oil, Opiate, Recovery, Pharmacy, Drugs.

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INTRODUCTION:

The contact of a person to an agent which can lead to the malfunctioning of organs which may result to injury of those organs or death of that person is known as poisoning [1]. AP is concluded as the most frequent cause hospital emergency cases in the shape of adolescence or children as its victims. This disease is very common in the countries which are highly developed as USA, UK and Australia [2, 3]. This disease can be fully mature or the cause of some other infection. The signs of this very disease appear within minutes after the intake of its agents through eating.

Signs develop with time in the patients of chronic poisoning. There is a full removal of the signs occur when the sufferer is removed from his usual surrounding areas [4]. AP is thought to be very risky health trouble in the countries which are under development [4]. Poisoning which is the result of accident is the cause of two percent death in those countries [5]. Some different types of toxic materials are concluded as very common agents causing this disease in the patients [6].

Riordan concluded many medicine substances as the most common agent of this disease in the children [7]. The medicinal agents included analgesics, psychotropic toxics and other related agents [8]. Some non medicine agents which are house held as solvents, bleach, insecticides and caustics were also founded as the most frequent causes of AP among children [9]. AP among children is the main cause of the unhealthy conditions and the death which can be prevented with the help of awareness and precautions [10]. The aspects which are linked with the accidental AP include the young and impetuous personality [11-13]. The willing poisoning is very common in the female gender and adolescent [12]. Kerosene oil and different types of drugs are the most common cause factors of this disease which are the result of AP in small age children [14-16]. Caustics are the main agents which are causing deaths among children [17]. The objective of this research work is to conclude the model and rate of the different toxic materials which are the part of AP in children, time between the intake of the toxic material and admission at hospital and hospital results.

METHODOLOGY:

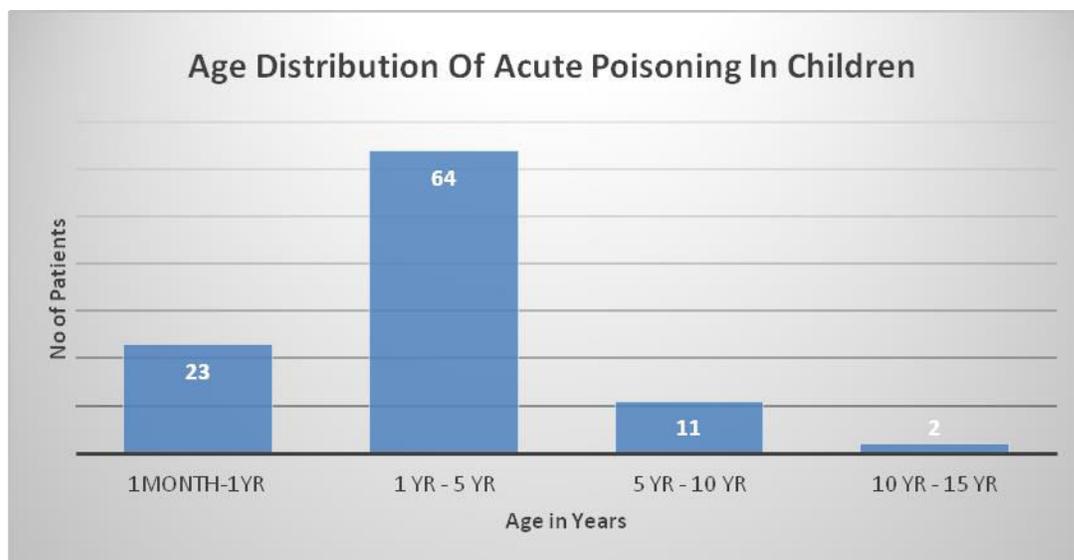
The research work was carried out at Government THQ Indus Hospital Manawan Lahore and BHU Pakpattan. The duration of this study was from November 2017 to May 2018. One hundred children from one month to fifteen year of age with exact background of contact with the toxic agents were made the participants of this research work. The patients of chronic intoxication and insect bite were not included in the participants of this research work. All the participants were subjected to complete history of their gender, age, area, the cause of this disease in them, exact duration of the intake of the toxic material, time of entrance at clinic and hospital result.

All this data was secured on a special form made for this purpose. Whole body assessment and systemic assessment was carried out for all the participants of the study. Assessment like CBC (complete blood count), chest X ray, glucose level of blood, blood urea and toxic screening of the plasma complied upon the need of investigations. Special administrative precautions as antidote or alkalization were also carried out. The results were calculated at the time of complete discovery of the patients or on the death of the patients. The benefits and dangers of the research were explained to the close relatives of the patients and their verbal willing was taken to include their patients in this research work. SPSS software version ten was used for the analysis of the data about the patients. All the patients were divided into four age groups from one to four depending upon the age of the patients. Average and standard division of the age was calculated with the help of explained Statistics. The rate of the patients was analyzed for sex, division of urban and non urban area patients, type of the toxic material and result. Figure and tables were used for the better representation of the collected data.

RESULTS:

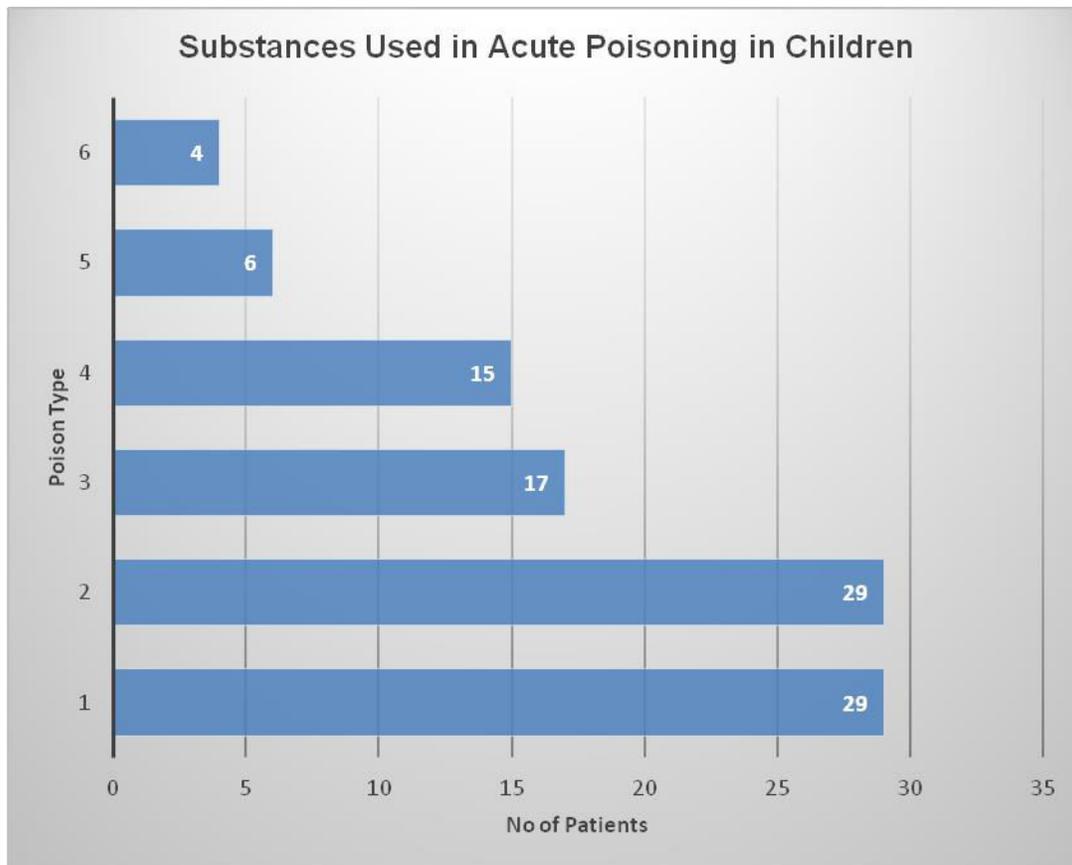
One hundred sufferers of AP were the part of this study. Sixty nine percent were the male participants and thirty one percent were the female participants. Age group from one to five years contains sixty four percent participants. Participants in the less than one year age group were twenty three percent. Age group from five year to ten year of age group contained eleven percent patients. The age group from ten to fifteen year of age contained only two percent participants. All the information for the age division is described in Table-1.

Age (in years)	No of Patents (%)
1month-1yr	23
1 yr - 5 yr	64
5 yr - 10 yr	11
10 yr - 15 yr	2



The sufferers from city areas were greater than the patients from rural areas. Patients from urban areas were fifty three percent and patients from non urban areas were forty seven percent. Concerning about the sample and ratio of various toxic materials were much frequent and making twenty nine percent in each. Tricyclic anti-depressants and analgesics were the most frequent in the drug types. Table-2 describes the frequency and pattern in detail.

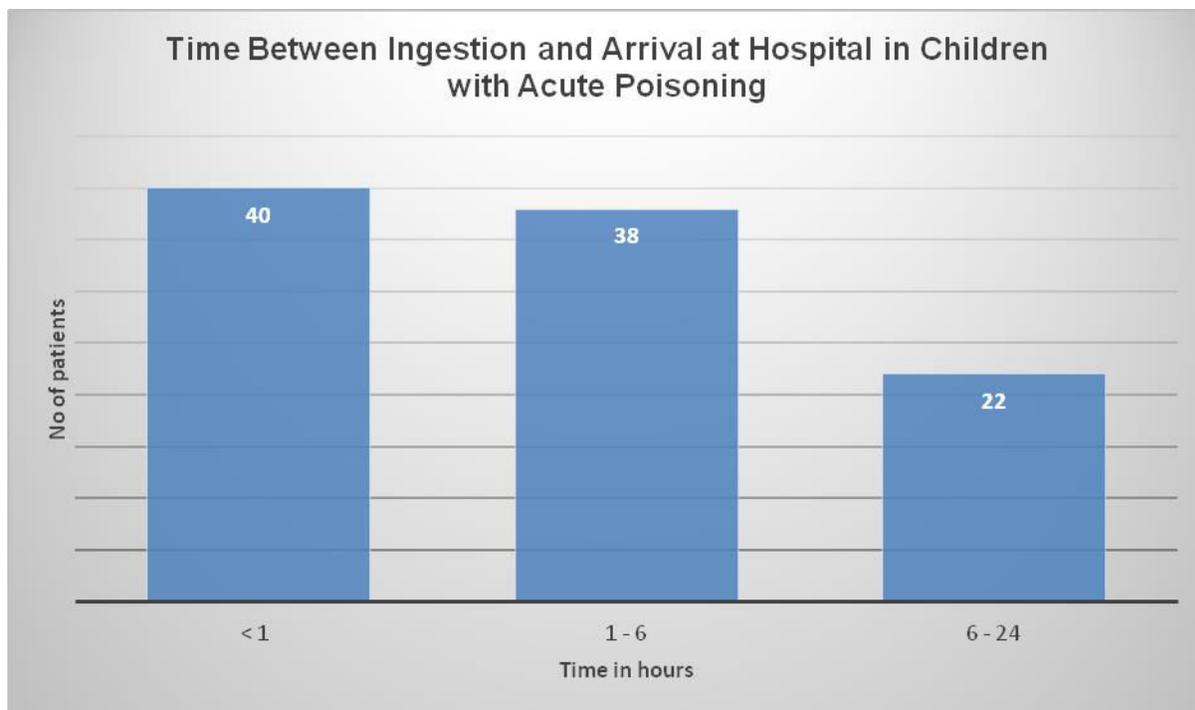
Poison Type	No of Patients (%)
Drug	29
Kerosene Oil	29
Opiate	17
Organophosphorus	15
Corrosives	6
Dhatura	4
Total	100



The patients, who were taken to the hospital within six hour after the intake of the toxic material, were seventy eight percent. Remaining twenty two percent arrived at hospital after eating of the poison. This detail is given in table-3. Six percent patient died in the hospital stay while ninety four percent were discharged after complete recovery.

Table-III: Time between ingestion and arrival at hospital in children with acute poisoning (n =100)

Time (in hrs)	No of Patents (%)
< 1	40
1 - 6	38
6 - 24	22
Total	100



DISCUSSION:

AP is very frequent trouble. Eighty seven percent patients in this research works were less than 5 year of age. This factor is also concluded in other studies [10, 18, 19]. The average age was three years in this study which is close to the 2.48 concluded by Hamid [10]. Male patients were greater than female; same was proved in the studies carried out in New Delhi and Kuwait [20, 21]. The difference between ratios of participants of urban and non urban area was not significant. This was different from the outcomes of research works carried out in Lahore [10, 21]. Drugs used in the pharmacy are the most frequent cause making twenty nine percent patients similar to many studies [6, 11, 19]. Research work carried out in UK concluded lomoil and diphenoxylate drugs are the most frequent cause of poisoning [22].

Many other research works concluded the same frequency of Kerosene oil poisoning [6, 18, 20, 21]. Some studies denied its frequency due to the availability of other fuels [23]. Seventy eight percent patients arrived at hospital in the very six hours after the intake of the toxic material. The late arrival in twenty two percent cases was due to the negligence of the attendants. Mortality due to intoxication is concluded from 0.8% to 12.5% in various research works [9, 21, 22]. In this research work, mortality rate was about six percent which less than mortality rate mentioned in other studies [6, 10]. Corrosives

were concluded as most important cause of mortality in many research works as well as this study [17].

CONCLUSIONS:

AP is one of the serious medical conditions. It has a very dangerous impact on the healthy condition and the lives of the small age children. The most important victim of this disease is toddlers. Different types of drugs, opiate, organo-phosphorus and kerosene oil are the most frequent causing agents of this disease in the small age patients. The clinical outcome is not well rich in the sufferers suffering of corrosives poisoning.

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