

Pattern of Acute Poisoning Among Pediatric Patients Admitted to Poison Control Center of Ain Shams University Hospitals

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Abstract

Scientific background: Acute pediatric poisoning is considered as a major health problem in many countries and represents a significant burden for emergency room visits and hospitalization. The best way to fix this problem is to diagnose, treat and prevent it from happening again. **Aim of the work:** Determination the pattern and outcome of acute poisoning of children who admitted to Poison Control Center of Ain Shams University Hospitals (PCC-ASUH). **Subjects and methods:** It is a cross sectional descriptive study included 304 acutely poisoned children aged 1 to 18 years old from both gender who admitted to PCC-ASUH during the period from June 2020 to November 2020. In all children, the data that had been studied included: sociodemographic, poisoning profile, clinical examination, investigations, treatment measures, admission place and patients' outcome. **Results:** The study documented that toxicity of children less than 4 years showed the highest percentage (41.1%). The oral route was the major route of exposure (97.3%). The most common exposure was pesticide poisoning (23%), antipsychotic drugs (20.1%) and substances of abuse (17.1%). There was a highly significant difference between studied groups as regard gender, age groups and type of poisonous agents and a highly significant relation between the mode of poisoning and gender. There was a highly significant relation between the outcome and age groups. **Conclusion and recommendations:** toxicity in children less than 4 years showed the highest percentage. The most typically included agents were pesticides and pharmaceuticals agents. Working on a trial for raising the community awareness programs about poisons' exposure hazards as it is a very crucial strategy in that emergencies' prevention.

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Key words

Child poisoning, pesticides, Poison center

Introduction

Acute poisoning in pediatrics is very common as it is one of the prominent causes of mortality and morbidity worldwide as, children are curious and they explore at home and around (Berta et al., 2020). Thousands of children enter emergency services after accidentally consuming certain household products, medicines or pesticides. Most of these accidental poisonings are preventable (Sminkey, 2008). According to the Pediatric Fatality Case Review of 37th Annual Report of the American Association of Poison Control Centers, children less than 3 years accounted for 31.3% of exposures to poisonings, and children less than five years old were about 42.8% of human exposure. Pediatric poisoning is considered a major problem in Egypt due to the heavy workload on emergency departments and hospital admission (Sobeih et al., 2018). According to Poison Control Center Ain Shams Universities Hospitals (PCC-ASUH), pediatric poisoning indicated that children less than 15 years old, represented 32.3% of cases

(Abdelhamid, 2021). There are many differences within the patterns and causes of pediatric acute poisonings in different geographic regions, even within the same country (Alazab et al., 2016). In addition, causes and demographics of children's toxicity are very changeable, so regular monitoring is necessary to identify trends in childhood poisoning (Lee et al., 2019). Exposures leading to death in children ≤ 5 years old are mostly unintentional, while children over 13 years old are mostly intentional (Gummin et al., 2019). Understanding the poisoning pattern in a particular area will aid in risk factors identification along with the early management of these cases, thereby reducing morbidity and mortality (Abd-Elhaleem and Al Muqhem, 2014). Most of the studies of acute pediatric poisoning in the literature are data deficient, especially in busy emergency departments, where some medical data cannot be recorded in patient files (Lee et al., 2019). The current study aimed to identify the pattern and outcome of acute poisoning of children who were

admitted to the Poison Control Center of Ain Shams University Hospitals (PCC-ASUH) especially with the persistence of the Covid-19 pandemic which affected the pattern of poisoning.

Patients and Methods

This is a cross-sectional descriptive study that included 304 acutely poisoned children aged from 1 to 18 years old from both genders, who were admitted to the Poison Control Center of Ain Shams University Hospitals (PCC-ASUH) during the period from June 2020 to November 2020. Children with doubtful poisoning, referred from other departments for toxicological screening, transferred to another hospital, discharged without completing their treatment on the responsibility of their guardians, and who were admitted with allergic reactions and adverse drug reactions were excluded from the study. In all children, the following data had been studied and included; sociodemographic data (age, gender, residence, and economic status) and poisoning data (poisonous agents, exposure route, poisoning manner, place of poisoning, and time elapsed between exposure to toxin and hospital arrival). Assessment of acute poisoning based on; clinical manifestations (general and systemic manifestations), investigations (laboratory, electrocardiogram (ECG), chest X-ray and brain computerized tomography (CT) scan), treatment measures (life-saving and decontamination measures, administration of antidote, and symptomatic treatment), admission place (inpatient department and intensive care unit (ICU) and patients' outcome (complete recovery, complicated and died).

Ethical considerations: Administrative approval was obtained from PCC-ASUH. The study was authorized and approved by the local research ethics committee of the faculty of medicine, Suez Canal, and Ain Shams Universities. All patients' guardians were asked to sign a written informed consent. To guarantee confidentiality, patients were distinguished by being given serial numbers.

Statistical Analysis: Data were statistically analyzed by using (SPSS) version (22) software (SPSS Inc, USA). Qualitative variables were expressed as frequencies (n) and percentages (%). The Chi-square test was used to test the association between qualitative variables. P-value of 0.05 or less is considered significant, P-value of 0.01 or less is considered highly significant and P-value of > 0.05 is considered non-significant.

Results

The present study included 304 children; 125 of them (41.1%) were less than 4 years, 40 of them (13.1%) in age group (≥ 4 years to < 8 years), 26 of them (8.6%) in age group (≥ 8 years to < 12 years) and 113 of them (37.2%) in age group (≥ 12 years). Males were 129 children, representing (42.4%) of studied children, while females were 175 children (57.6%). Poisoned children from rural areas were 138 children (45.4%), while 166 children (54.6 %) were from urban areas. Most of studied children (80.3%) from family with moderate economic status (Table 1).

The major route of exposure was the oral route (296 children: 97.3%). Respiratory and dermal routes

were in 2 children (0.7%) and 6 children (2%) respectively. The manner of poisoning was suicidal in most of the studied children (188 children: 61.9%), and accidental in 112 children (36.8%). The location of toxicity in studied children was home in most cases (298 children: 98%), and outside home in 5 children (1.7%). The delay time between intoxication and arrival to emergency department was less than an hour in 68 children (22.4 %), 1 – 6 hours in 159 children (52.3%), more than 6 hours in 67 children (22%), and unknown in 10 children (3.3%) (Table 2).

Figure (1) shows distribution of classes of poisonous agents among poisoned children; the most common exposure was pesticide poisoning (70 children; 23%) including organophosphates, carbamates, and zinc phosphide. The second most common poisoning agents was antipsychotic drugs (61 children; 20.1%) followed by substances of abuse in the form of tramadol, cannabis and synthetic cannabis powder (52 children; 17.1%) while the least poisoning was by skeletal muscle relaxant drugs (4 children; 1.3%). There were ten children who took more than one poisonous agent.

The clinical evaluation of the poisoned children included clinical manifestations (symptoms and signs of various body systems), general and systematic examination as shown in (Table 3) where; the most frequent manifestations were gastrointestinal manifestations (153 children; 50.3%) followed by cardiovascular manifestations (80 children; 26.3%).

Table 4 shows the distribution of poisoned children according to types of investigations performed (laboratory and radiological). Most of the poisoned children underwent laboratory investigations (263 children; 86.5%). Positive finding in laboratory investigations were hypoglycemia (three children), high liver enzymes (two children) and hypokalemia (four children). While ABG findings are metabolic acidosis, respiratory acidosis, respiratory alkalosis (19, 18 and 7 children respectively).

ECG was recorded to 44.7% (136 children) of total sample (twenty-nine children had tachycardia and twelve children had bradycardia). Chest x-ray (postero-anterior view) was done to 10 children (3.3%) and CT brain was done to 2 children (0.7%). Positive findings were pneumonic patches in X-ray (two children) and abnormal barium findings (two children).

Treatment strategies of the poisoned children were shown in (Table 5). More than one third of children (111 children; 36.5%) received supportive care (including; suction, oxygen therapy, endotracheal intubation and fluid therapy). 128 children (42.1%) were decontaminated, 76 children (25%) were given specific antidote, and 298 children (98.02%) were given symptomatic treatment.

Two hundred and eleven children (69.4%) were admitted in the inpatient department, while 93 children (30.6%) needed intensive care unit (Figure 2). Cure rate was (97.03%) of children versus (2.3%) mortality rate and (0.7%) was of the complicated outcome.

Table 6 demonstrates a highly significance difference between different age groups regarding the

used poisonous agents (P value <0.01). The most poisoned agent in age groups (≥ 4 years to < 8 years) and (≥ 8 years to < 12 years) was antipsychotic drugs represented 34.1% and 33.3% respectively. Pesticide poisoning was the most poisoning agents in age groups (≥ 12 years) represented (46.2%).

The most frequent agents used by a male were substance of abuse (21.7%) while pesticides were the most agents used by female represented (31.4%). This difference was highly significant (P value <0.01) (Table 7).

There was a highly significant difference between the manner of poisoning and gender, because more than half of suicide attempts (58.5%) were males, while a high percentage of accidental exposure (86.6%) were females (P value <0.01) (Figure 3).

There was a highly significant difference between outcome of poisoned children and different age groups (P value <0.01). It shown that the most of completely recovered children were in age groups (< 4 years) represented (41.7%) and (71.4%) of dead children were in age groups (≥ 12 years) (Figure 4).

Table (8) shows that most of completely recovered children were poisoned by pesticides (22 %) and the two complicated cases were poisoned by corrosive agents. Five of seven dead children (71.4%) were poisoned by pesticides. This difference was significant (P value <0.05).

Table 1: Sociodemographic data of acute poisoned studied children

		Frequent (N=304)	%
Gender	Male	129	42.4
	Female	175	57.6
Age groups	<4 years	125	41.1
	≥ 4 years to < 8 years	40	13.1
	≥ 8 years to < 12 years	26	8.6
	≥ 12 years	113	37.2
Residence	Rural	138	45.4
	Urban	166	54.6
Economic status	Low	39	12.8
	Moderate	244	80.3
	High	21	6.9

Table 2: Distribution of intoxication data (route -manner -place and delay time) among Characteristics studied children

		Frequent (N=304)	%
Route of exposure	Oral	296	97.3
	Respiratory	2	0.7
	Dermal	6	2.0
Manner of poisoning	Accidental	112	36.8
	Suicidal	188	61.9
	Iatrogenic	4	1.3
Place of exposure	Home	298	98.0
	Street	2	0.7
	Farm	3	1.0
	Unknown	1	0.3
Delay time	< 1 hour	68	22.4
	>1 - 6 hour	159	52.3
	> 6 hour	67	22.0
	Undetermined	10	3.3

Table 3: Percentage of distribution of clinical manifestations of various body systems of acute poisoned studied children

		Frequent (N=304)	%
Gastrointestinal system	Nausea /vomiting	108	35.5
	Abdominal colic	15	4.9
	Diarrhea	16	5.3
	Dysphagia	15	4.9
	Hematemesis	5	1.7
	Melena	1	0.3
Central nervous system	Distributed level of consciousness	23	7.6
	Unsteady Gait	2	0.7
	Weakness	8	2.6
	Fasciculation	11	3.6
	Extrapyramidal	13	4.3
	Dysarthria	2	0.7
	Agitations	5	1.6
	Hallucination	2	0.7
Respiratory system	Convulsions	4	1.3
	Distress	8	2.6
	Crepitation	15	4.9
Cardiovascular system	Wheezy chest	3	0.99
	Hypotension	32	10.5
	Hypertension	2	0.7
	Tachycardia	32	10.5
Skin	Bradycardia	16	5.3
	Edema	19	6.3
	Redness	4	1.3
Ocular	Sweating	25	82.2
	Constricted pupil	109	35.9
Mouth	Dilated pupil	22	7.2
	Salivation	11	3.6
	Corrosion	9	2.96
	Edema	6	1.97

**More than one choice is allowed*

Table 4: Percentage of laboratory investigation in the studied children

	Frequent (N=304)	%
Complete Blood Count	21	6.9
Random Blood Sugar	4	1.3
Arterial Blood Gases	201	66.1
Kidney function test	29	9.5
Liver function test	21	6.9
Cardiac enzymes	4	1.3
Electrolytes	13	4.3
Prothrombin time (PT), partial thromboplastin time (PTT), and international normalized ratio (INR)	16	5.3
Electrocardiogram (ECG)	136	44.7
Chest x-ray (postero-anterior view)	10	3.3
Brain computerized tomography (CT) scan	2	0.7

**More than one choice is allowed*

Table 5: Frequent distribution of acute poisoned studied children according to treatment strategies

		Frequent (N=304)	%
Supportive treatment (ABC)	Suction	3	0.9
	Oxygen therapy	111	36.5
	Fluid therapy	111	36.5
Decontamination	Emesis	40	13.2
	Gastric lavage	37	12.2
	Activated charcoal	60	19.7
	Skin wash	2	0.7
Antidote	IV N- Acetyl Cysteine	20	6.6
	Oral N-Acetyl Cysteine	3	0.9
	Atropine	48	15.8
	Pralidoxime (Toxoguanine)	14	4.6
	Anti-venom	5	1.6
Symptomatic treatment		298	98.02

**More than one choice is allowed*

Table 6: Statistical analysis of frequency of age groups in acute poisoned studied children according to type of poisonous agents using Chi square test

Poisonous agents	Age groups				P value
	< 4 years (N=125)	≥4 years to < 8 years (N=40)	≥ 8 years to < 12 years (N=26)	≥ 12 years (N=113)	
Antipsychotic drugs	23 18.4%	14 35%	9 34.6%	15 13.3%	0.000**
Anticonvulsant drugs	4 3.2%	3 7.5%	0 0.0%	2 1.7%	
Analgesics anti-inflammatory drugs	5 4%	1 2.5%	0 0.0%	8 7.1%	
Cardiopulmonary drugs	7 5.6%	5 12.5%	0 0.0%	23 20.4%	
Skeletal muscle relaxant drugs	1 0.8%	0 0.0%	3 11.5%	0 0.0%	
Hypoglycemic drugs	2 1.6%	0 0.0%	0 0.0%	6 5.0%	
Unknown tablets/others	2 1.6%	3 7.3%	4 14.8%	6 5.3%	
Corrosive	27 21.6%	4 10%	2 7.7%	1 0.9%	
Pesticides (organophosphorus, carbamate & zinc phosphide)	6 4.8%	5 12.5%	4 15.4%	55 48.7%	
Hydrocarbon	5 4%	3 7.5%	0 0.0%	0 0.0%	
Substances of abuse (Cannabis Tramadol & Synthetic cannabinoids)	46 36.8 %	3 7.5%	2 7.7%	1 0.9%	
Animal poisoning	1 0.8%	0 0.0%	3 11.5%	2 1.7%	

**More than one choice is allowed Chi square test was used ** = highly significant, p < 0.01*

Table 7: Statistical analysis of frequency of gender of acute poisoned studied children according to type of poisonous agents using Chi square test

Poisonous agents	Gender		P value
	Male(N=129)	Female(N=175)	
Antipsychotic drugs	27 20.9%	34 19.4%	0.000**
Anticonvulsant drugs	3 2.3%	6 3.4%	
Analgesics anti-inflammatory drugs	5 3.8%	9 5.1%	
Cardiopulmonary drugs	12 9.3%	23 13.1%	
Skeletal muscle relaxant drugs	4 3.1%	0 0.0%	
Hypoglycemic drugs	1 0.8%	7 4%	
Unknown tablets/others	4 3.1%	11 6.2%	
Corrosive	19 14.7%	15 8.6 %	
Pesticides (organophosphorus, carbamate & zinc phosphide)	15 11.6%	55 31.4%	
Hydrocarbon	7 5.4%	1 0.6%	
Substances of abuse (Cannabis Tramadol, & Synthetic cannabinoids)	28 21.7%	24 13.7%	
Animal poisoning	6 4.6%	0 0.0%	

*More than one choice is allowed

Chi square test was used

** = highly significant, $p < 0.01$ **Table 8: Statistical analysis of frequency of outcome of acute poisoned studied children according to type of poisonous agents using Chi square test**

Poisonous agents	Outcome			P value
	Complete recovery (N=295)	Complicated (N=2)	Died (N=7)	
Antipsychotic drugs	61 20.7%	0 0.0%	0 0.0%	0.03*
Anticonvulsant drugs	9 3.1%	0 0.0%	0 0.0%	
Analgesics anti-inflammatory drugs	14 4.7%	0 0.0%	0 0.0%	
Cardiopulmonary drugs	35 11.9%	0 0.0%	0 0.0%	
Skeletal muscle relaxant drugs	4 1.4 %	0 0.0%	0 0.0%	
Hypoglycemic drugs	8 2.7 %	0 0.0%	0 0.0%	
Unknown tablets/others	14 4.7%	0 0.0%	1 14.3%	
Corrosive	32 10.8%	2 100%	0 0.0%	
Pesticides (organophosphorus, carbamate & zinc phosphide)	65 22%	0 0.0%	5 71.4%	
Hydrocarbon	8 2.7 %	0 0%	0 0.0%	
Substances of abuse (Cannabis Tramadol, Strox powder)	51 17.3%	0 0.0%	1 14.3%	
Animal poisoning	6 2%	0 0.0%	0 0.0%	

*More than one choice is allowed Chi square test was used

* = significant, $p < 0.05$

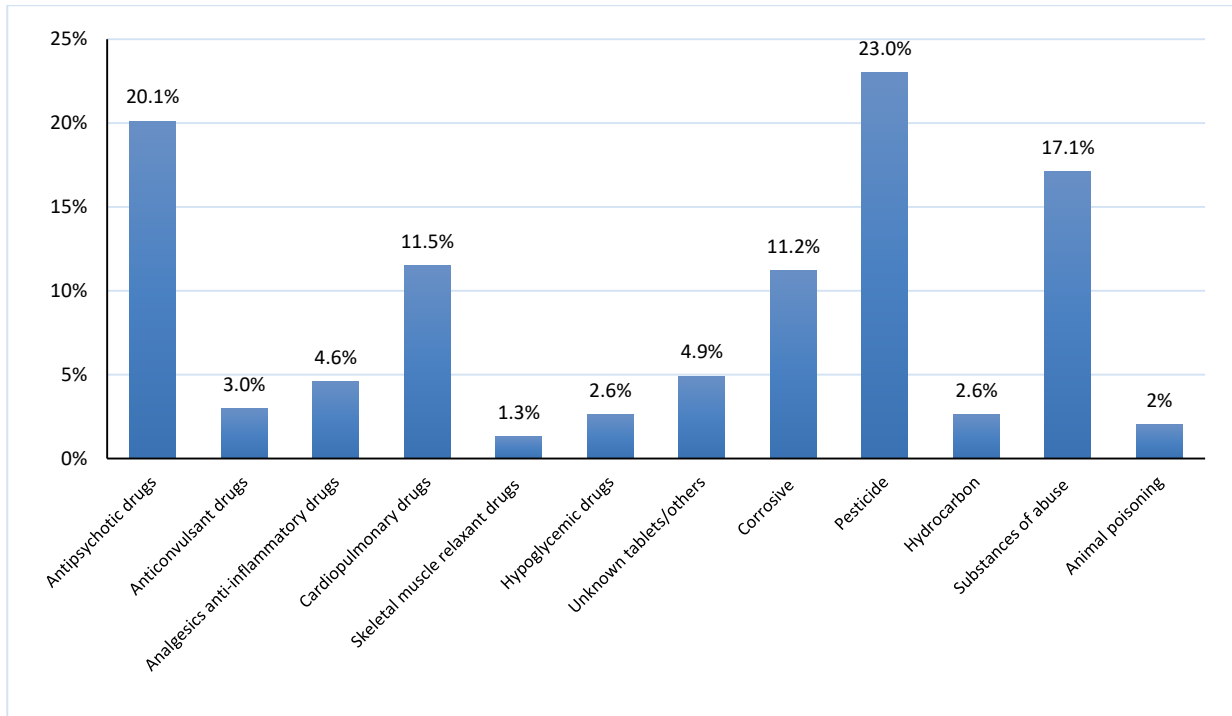


Figure (1): Frequent distribution of the classes of poisonous agents among acute poisoned studied children (N=304)

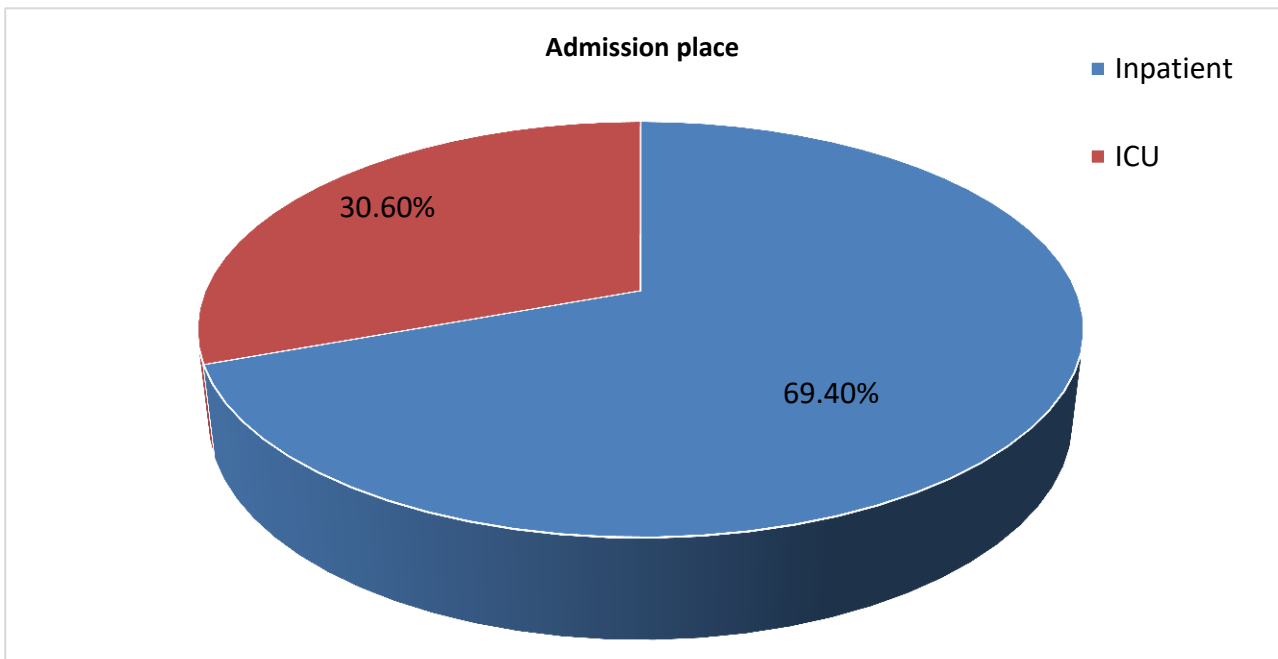


Figure (2): Frequent distribution of the acute poisoned studied children according to admission place (N=304)

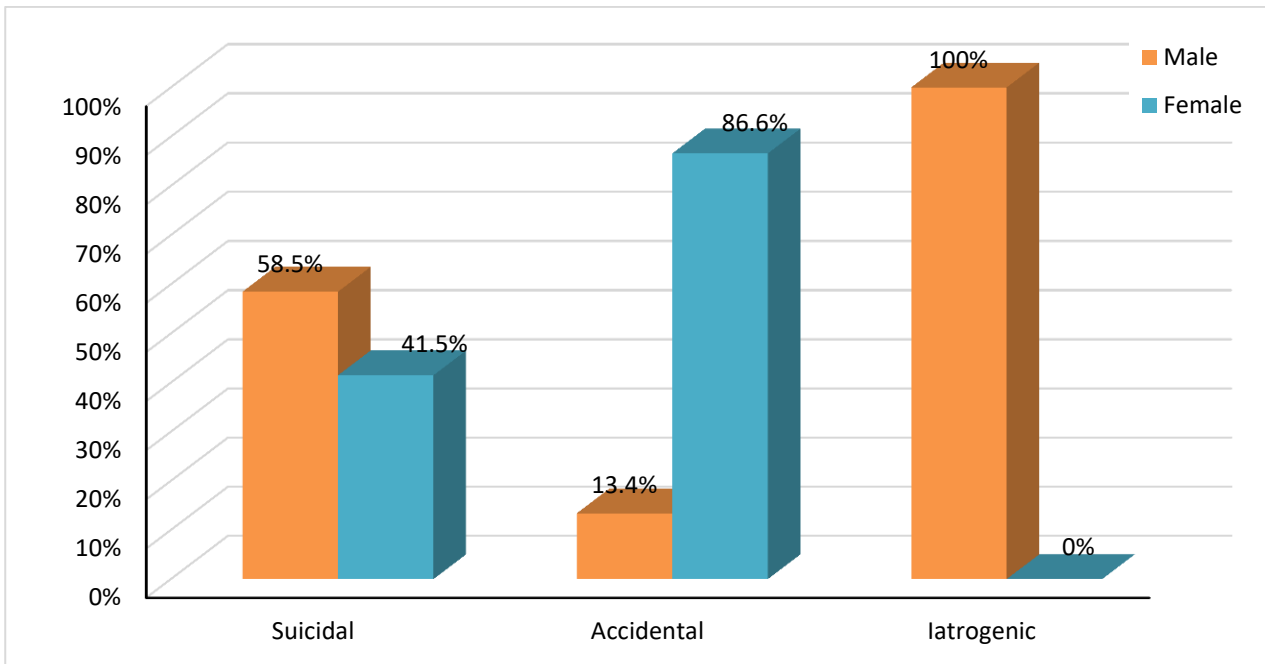


Figure (3): Frequency of mode of poisoning in acute poisoned studied children according to gender using Chi square test

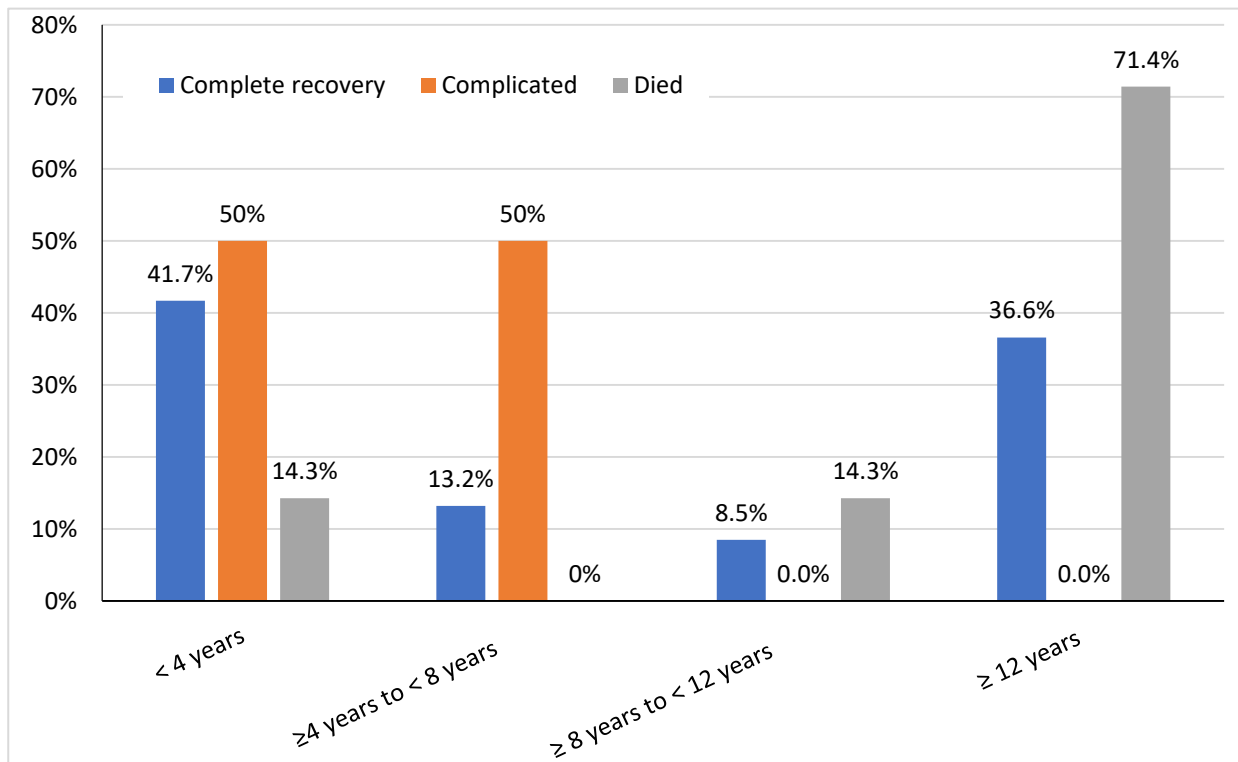


Figure (4): Frequency of outcome of acute poisoned studied children according to age groups using Chi square test

Discussion

Acute poisoning is one of the most common pediatric emergencies causing high social and economic impact (Rodgers et al., 2007). Determination of demographic characters of pediatric poisoning is highly important for both treatment plans and preventive measures (Hassan and Siam, 2014). The current study documented that the majority of poisoned children were under 4 years old, followed by children older than twelve years. That result may be due to the curiosity and oral exploration are more evident in young children, so they represented the higher percentage. The adolescent age is associated with instability and the tendency to use new substances for new experiences along with social, political, and economic challenges in Egypt (El-Masry and Tawfik 2013). The results are in agreement with Mutlu et al. (2010) results which indicated that 51 to 73% of all cases appeared in children of 5 years old. Also, the most poisonings occur in children aged between one and 4 years, and also in the age of 14 (Kivisto et al., 2008). The current results concluded that the majority of poisoned children were female and were from urban areas. Most of the studied children were from families with moderate socio-economic states. The results are in difference with Aggarwal et al. (2014) results which reported a high proportion of boys across all the studied age groups. Also, Hassan and Siam (2014) results stated that the poisoned children in rural areas were higher than that of urban areas. The difference may be due to, in some urban areas poisoned patients tend to admit to private hospitals. The present study documented that, the manner of intoxication was suicidal in most studied children (61.8%), followed by the accidental one. The results are in agreement with Hyder et al. (2009) results and in a difference with Agran et al. (2001) who documented that toxicity of children up to the age of 10 years is accidental. The oral route was dominated in the majority of cases (97.2%), which was explained by the curiosity and oral exploration in young children which was more evident as the majority of the studied patients were less than four years old in age. The results are in agreement with other Egyptian studies which concluded that the most common route of toxin exposure was the oral route (92.55% and 99.3% respectively) (Sobeeh et al., 2018 and Alazab et al., 2016). The delay time between intoxication and arrival to emergency department was less than an hour in (22.4 %), from one to six hours in (52.3%), and more than six hours in (22%). The decrease in the delay time in the present study may be explained by the moderate socioeconomic status of the patients' families along with the fact that most of the patients were urban in origin. The results are in agreement with Aggarwal et al. (2014) study which included that delay time was less than an hour in the majority of children, ranging from one to six hours in 37.1%, and more than six hours in 2.6% only. The current study documented that the most common exposure agent was pesticide poisoning (23%) followed by antipsychotic drugs (20.1%) followed by substances of abuse (17.1%) and lastly poisoning by

skeletal muscle relaxants drugs (41.3%). The predominance of pesticides poisoning could be explained by their easy access and misuse in Egypt. Antipsychotic poisoning increase may be due to that during the Covid-19 pandemic there was worldwide dramatic behavioral changes that occurred and influenced all ages with a resultant increase in admission rate of PCC due to antipsychotic agent toxicity (Kampf et al., 2020). The results are in agreement with Akhtar et al. (2006) and Hassan and Siam (2014) result as they documented that, pesticides were the most common poison implicated in the poisoned children. Some eastern studies documented, the predominance of neurological and nonsteroidal anti-inflammatory medications poisoning especially in Turkey (Taft et al., 2002). The current study documented that, poisoned children were symptomatic at admission, the most common symptoms were gastrointestinal (50.3%) followed by cardiovascular manifestations (26.3%). The results could be explained by the fact of the most prevalent toxic agent was pesticides. The results are in agreement with Hassan and Siam (2014) study which revealed that the commonest symptoms are vomiting and drowsiness. Sobeeh et al. (2018) and Ragab and Al-Mazroua (2015) concluded that 33.03% and 11.70% of children, were suffered from gastrointestinal symptoms and chest manifestations respectively while most of the poisoned children were conscious, and presented with normal vital signs and oxygen saturation. The present study documented that, laboratory investigations were done for most poisoned children (86.5%). (ECG) was ordered to 44.7% and chest x-ray in (3.3%) and CT brain was done in (0.7%). Maklad et al. (2012) documented that airway and circulatory assessment is the life-saving first step in pediatric poisoning. (69.4%) of the patients were admitted to an inpatient department, (30.6%) needed an intensive care unit. The present study concluded that the cure rate was (97.03%) of children versus (2.3%) mortality rate and (0.7%) was of the complicated outcome. The low mortality rate could be explained by the decreased delay time along with the rapid life-saving measures which took place for the pediatric patients. The results are in parallel with Hon and Leung (2010) conclusion which mentioned that most pediatric poisonings are trivial due to the small doses associated with accidental exposure. El-Shoura et al. (2016) stated that 30.2% of children were completely recovered after hospital admission and 69.8% were discharged from Emergency Department. The present study showed that the type of poisonous agent can be affected obviously by age and gender. This effect can be demonstrated by the predominance of poisoning by antipsychotic drugs in patients aged between 4-12 yrs. and high frequency of pesticides poisoning in patients aged more than 12 yrs. With regard to gender, the substance of abuse and pesticides were more frequent in males and females respectively. Many studies confirmed that poisonous agents can be affected by age and gender such as a study done in Middle Delta in Egypt and concluded

that patients less than 6 years old represented about one-third with corrosive poisoning while there was cholinesterase-inhibitors pesticides predominance among the patients from 6 to 18 years old (Sobeeh et al., 2018). There is a prominence of non-opioid analgesics and non-pharmaceutical agents in the adolescent age group, like corrosives and pesticides, dominance in younger age groups (Alazab et al., 2016). Regarding the gender effect, Abd-Elhaleem and Al Muqhem (2014) results documented that scorpion sting was higher in males than females (43% versus 19%) while the pharmaceutical drugs poisoning was high in female adults and adolescents. The present study concluded an obvious effect of patient's gender on the manner of intoxication which used, as suicidal one in was predominant in males, while accidental intoxication recorded higher rate in female patients. Those present results are very interesting as they are in difference with studies that documented that male gender was associated with accidental poisoning, but female gender was associated with intentional poisoning (Lin et al., 2011 and Alazab et al., 2016 and Sobeeh et al 2018). The present study stated that most patients with complete recovery were in the youngest age group including children less than four years and this can be related to the usual mild toxicity in this age group as they usually take small amounts of toxic agents accidentally. The higher rate of death was recorded in the older age group that includes children older than 12 years, this can be explained by the frequent higher rate of suicide in those children and the high dose which ingested. In contrast to the current study, Abd-Elhaleem and Al Muqhem (2014) results concluded that all age groups were completely recovered from toxicity and related that to the early and proper intervention. The outcome of acute toxicity in children is mainly affected by the type of toxic substance and this was confirmed in the present study. All complicated cases of the study come from corrosive toxicity as the complication cannot be avoided completely in those toxicities which are related to the nature of the corrosive agent. Most of the cases of death, in the present study and another study done in the same center in 2015, were recorded from pesticide toxicity, and this finding highlights that pesticide is a big problem locally and globally and need more attention from authority to control this toxicity and improve the outcome (Tawfik and Khalifa 2017).

Conclusion and Recommendations

Poisoning of children was a serious problem in Egypt. Pediatric poisoning under 4 years old represented the highest percentage. The most typically included agents were pesticides and pharmaceuticals drugs. The epidemiological aspects of pediatric poisoning must be investigated further in our nation through prospectively designed multicenter studies. Egyptian poison centers' collaboration became highly important for poisoning accurate mapping along with treatment protocols formulation. Working on a trial for raising the community awareness programs about poisons' exposure hazards as it is a very crucial strategy in that emergencies' prevention.

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نمط التسمم الحاد لدى الأطفال الذين تم حجزهم بمركز علاج التسمم بمستشفيات جامعة عين شمس

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الملخص العربي

الخلفية العلمية: يعتبر التسمم الحاد لدى الأطفال مشكلة صحية في العديد من البلدان ويمثل عبئاً كبيراً على أقسام الطوارئ والداخلية بالمستشفيات. والطريقة المثلى لحل هذه المشكلة هو التشخيص، والعلاج ومحاولة الحد من حدوثها. **الهدف من البحث:** تحديد نمط ونتائج حالات التسمم الحاد في الأطفال الذين تم حجزهم بمركز مكافحة السموم بمستشفيات جامعة عين شمس. **المرضى و المواد:** دراسة مقطعية وصفية شملت ٣٠٤ طفل مصاب بالتسمم الحاد و تم حجزهم بمركز مكافحة السموم بمستشفيات جامعة عين شمس تراوحت أعمارهم بين ١ و ١٨ عاماً من كلا الجنسين خلال الفترة من يونيو ٢٠٢٠ إلى نوفمبر ٢٠٢٠. **إشتملت الدراسة على:** البيانات الاجتماعية الديموغرافية، بيانات التسمم، بيانات الفحص السريري، البيانات التي تم الحصول عليها من الفحوصات الروتينية، مكان القبول؛ ونتائج المرضى. **النتائج:** بينت نتائج الدراسة أن تسمم الأطفال في سن أقل من ٤ سنوات شكل أعلى نسبة إصابة (٤١,١٪). كان التسمم عن طريق الفم هو الطريق السائد للتسمم (٩٧,٣٪). وكان التعرض الأكثر شيوعاً هو التسمم بالمبيدات (٢٣٪)، والأدوية المضادة للذهان (٢٠,١٪) والمواد المخدرة (١٧,١٪). كان هناك فرق ذو دلالة إحصائية بين المجموعات الخاضعة للدراسة فيما يتعلق بالجنس والفئات العمرية ونوع المواد السامة وكذلك علاقة ذات دلالة إحصائية بين نمط التسمم والجنس. كانت هناك علاقة ذات دلالة إحصائية بين نتيجة التسمم والفئات العمرية. **الخلاصة و التوصيات:** كان لتسمم الأطفال في سن أقل من ٤ سنوات أعلى نسبة تسمم. كانت المبيدات الحشرية والأدوية أكثر السموم شيوعاً. العمل على تجربة لرفع برامج توعية المجتمع حول مخاطر التعرض للسموم لأنها استراتيجية حاسمة للغاية في منع حالات الطوارئ

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