

INTRODUCTION

Trauma registries are considered databases intended to document the acute stage of hospital care carried to trauma victims. Trauma registries commonly include information on demographics of the patients, the circumstances of the trauma, pre-hospital care, interventions received during their emergency department and in-hospital stay, description of the anatomical site of injury, physiological measurements, complications, outcomes and patient disposition. To improve outcomes for injured pediatric patients, this requires strong data from hospital-based trauma registries. They provide a standardized way to facilitate injury surveillance, measure outcomes, and track changes in trauma system performance over time.

AIM OF THE WORK

The primary aim was to investigate all injuries from trauma-related causes among children aged from birth till 16 years to estimate the prevalence of different types of childhood injuries presenting at Alexandria Main University Hospital.

The Secondary aim is to evaluate the outcome of pediatric trauma patients.

PATIENTS AND METHODS

The required sample was collected over a period of six months, with a minimum sample size of 350 patients who were admitted to Alexandria Main University Hospital (AMUH) through the Emergency Department (ED) and had a history of trauma according to the inclusion criteria.

RESULTS

Table 1: Distribution of the studied cases according to mode of trauma.

	No.	%
Mode of trauma		
Falling	153	42.5
RTA	40	11.1
Direct trauma	106	29.4
Burn	57	15.8
Drowning or near drowning	1	0.3
Stab	1	0.3
Shotgun	2	0.6

Table 2: Relation between patient outcome and complications (n =360).

Complications	Patient outcome						FET	p
	Discharge (n = 335)		Death (n = 6)		Disability (n = 19)			
	No.	%	No.	%	No.	%		
No	316	94.3	2	33.3	16	84.2	18.385*	0.001*<
Yes	19	5.7	4	66.7	3	15.8		
Sepsis	15	4.5	0	0.0	2	10.5	59.748*	0.001*<
Anemia	2	0.6	0	0.0	0	0.0		
Renal failure	0	0.0	1	16.7	0	0.0		
Sepsis + Anemia	2	0.6	0	0.0	0	0.0		
Sepsis + ARDS +Renal failure + Rhabdomyolysis	0	0.0	2	33.3	0	0.0		
Sepsis + ARDS	0	0.0	1	16.7	0	0.0		
Renal failure + Rhabdomyolysis	0	0.0	0	0.0	1	5.3		

Table 3: Univariate and multivariate logistic regression analysis for the parameters affecting complications (n = 26 vs. 334).

	Univariate		#Multivariate	
	p	OR (LL – UL 95%C.I)	p	OR (LL – UL 95%C.I)
Mode of trauma				
Presence of Direct trauma	0.018*	0.087 (0.012 – 0.652)	0.259	0.268 (0.027 – 2.635)
Presence of Burn	0.002*	3.816 (1.634 – 8.913)	0.967	1.038 (0.172 – 6.280)
Location of injury				
Presence of Head	0.002*	0.040 (0.005 – 0.299)	0.222	0.218 (0.019 – 2.518)
Presence of Multiple	<0.001*	17.462 (5.844 – 52.177)	0.011*	6.622 (1.536 – 28.550)
Type of injury				
Presence of Blunt	0.013*	0.355 (0.158 – 0.800)	0.425	0.486 (0.083 – 2.856)
Presence of Burn	0.002*	3.816 (1.634 – 8.913)	0.967	1.038 (0.172 – 6.280)

CONCLUSIONS

Falls were the leading cause of pediatric trauma (42.5%), followed by direct trauma (29.4%) and burns (15.8%). Sepsis (4.7%) was the most common complication, followed by ARDS and renal failure, highlighting the importance of early infection control and systemic monitoring.