

TRAUMATIC BRAIN INJURIES IN A LARGE PEDIATRIC HOSPITAL IN GEORGIA

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Introduction

Traumatic brain injury (TBI) is a leading cause of death and disability worldwide and a major public health challenge. Children are a particularly vulnerable population because they may suffer from life-long disability. Study of TBI with reliable and high quality data represents the basis for effective strategies for injury prevention. In the Republic of Georgia, TBI reporting for hospitalized patients has followed international E-health standards.



Objective

This study examines epidemiological features of pediatric TBI from the biggest pediatric hospital in Georgia.

Methods

NCDC database for 2018 was used to identify TBI cases treated at the largest pediatric hospital in Georgia. Cases were included based on the S06 diagnosis coded of ICD-10. Descriptive statistics were used.

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Tables and or figures

Table №1 Distribution of cases according to the number of hospital days

	Tot	1		2-6		7-14		>15	
		N	%	N	%	N	%	N	%
Gender									
Male	181	100	55.2	61	33.7	12	6.6	8	4.4
Female	115	61	53.0	47	40.9	5	4.3	2	1.7
Age									
0-4	80	37	46.3	38	47.5	3	3.8	2	2.5
5-9	85	54	63.5	24	28.2	5	5.9	2	2.4
10-14	94	51	54.3	32	34.0	8	8.5	3	3.2
15-17	37	19	51.4	14	37.8	1	2.7	3	8.1
Mechanism									
RTI	56	23	41.1	20	35.7	8	14.3	5	8.9
Fall	197	111	56.3	76	38.6	5	2.5	5	2.5
Assault	0	0	0.0	0	0.0	0	0.0	0	0.0
W20-W64	42	27	64.3	12	28.6	3	7.1	0	0.0
Other	1	0	0.0	0	0.0	1	100.0	0	0.0

Results

The Iashvili Childrens' hospital treated 296 pediatric brain injuries in 2018. TBIs were more common in boys (61.1%) than in girls (38.9%), and patients aged 10 -14 were most frequent. 4,4% of male patients and 1,7% of female patients required more than 15 days of in-patient treatment. More than two thirds of children had suffered TBI due to falling (66.6%), followed by road traffic injuries (18.9%) and other type of blunt force (14.2%). 54.3% of all TBI patients required at least one day of hospital stay. Most of the TBI patients (74,3%) were brought to the hospital by private transportation. In-patient treatment was completed in 98.9% of cases, three male patients (1%) died. In all three cases of lethal outcome, the cause of injury was road traffic.

Conclusion

Current official data reflects incomplete picture on the TBI in the country, including pediatric TBIs. Implementing an injury surveillance system to specifically document injuries and external risk factors would be valuable for a more complete TBI's epidemiological assessment.