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Traumatic Brain Injury in Preschool Children in Taiwan Nationwide

ABSTRACT

Background. Injuries to preschool children are a major public health problem throughout the world.¹⁻⁶ Injuries account for a great proportion of all causes of death in preschool children.⁷

Aims. This study describes the characteristics of preschool children who have experienced traumatic brain injury (TBI) in Taiwan.

Methods. From July 1, 1998 to June 30, 2001, the Head & Spinal Cord Injury Research Group of the Taiwan Neurosurgical Society compiled a traumatic brain injury registry. Data on patients 6 years of age and younger were collected in this study from 31 major hospitals, which accounted for about 80% of all hospitals capable of treating TBI in Taiwan. Patients who died at the scene or during transportation were excluded from this study.

Results. In this study, data on 1030 preschool children with traumatic brain injury (TBI) were collected from 31 hospitals in Taiwan from July 1, 1999 to June 30, 2001. The male to female ratio was 1.67. Falls (60.0%) and traffic injuries (24.7%) were the two leading causes of TBI among preschool children. The results of this study showed that the rates of falls from a great height (> 1 m), from a low height (≤ 1 m), and from the same level (slip) were 20.4%, 36.9%, and 42.7%, respectively. Of all traffic injuries, pedestrian injuries had the highest rate (36.1%), followed by motorcycle-related injuries (31.8%). In this study, we also found that 83.6% (815) of cases had mild TBI, 10.5% had moderate TBI, and 5.9% had severe TBI.

Conclusions. Preschool children with mild TBI had a better recovery rate, whereas those with severe injuries had a higher mortality rate. Determining ways to prevent preschool children from suffering TBI is the main focus for improving the level of public health. (N. Taipei J. Med. 2002;4:235-242)

INTRODUCTION

Injuries to preschool children are a major public health problem throughout the world.¹⁻⁶ Injuries accounted for a great proportion of all causes of deaths

in preschool children.⁷ In 1995, injuries accounted for 4% of deaths among infants aged 1-11 months, 22% among children aged 1-4, and 26% among children aged 5-6.^{8,9} In developed countries traumatic brain injury (TBI) is the leading cause of morbidity

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