

or below; (ii) moderate, a score of 9 to 12, or if the patient underwent brain surgery or had abnormal computed tomography (CT) scan findings; and (iii) mild, a score of 13 to 15, or the patient had conditions not meeting any of the above criteria.

The Glasgow Outcome Scale²⁶ was used to categorize the outcome of TBI patients at the time of hospital discharge as follows: (i) death; (ii) persistent vegetative state; (iii) severe disability-conscious but dependent; (iv) moderate disability-disabled but independent; and (v) good recovery.

Analysis

In this study SPSS 9.0 was used to process the data. Regarding the rating model itself, reliability and correlation tests were conducted to calculate the coefficients, and factor analysis was carried out to verify their validity.

RESULTS

From July 1, 1998 to June 30, 2001, data on 1030 TBIs in preschool children were collected for this study. The male-to-female ratio was 1.67: 1. While girls injured themselves with almost equal frequency

at different ages, injuries in boys were more frequent at all ages. Boys had a peak in incidence of injury at 2 years of age (Fig. 1).

The main cause of TBIs was falls, which accounted for 613 of the cases (60.0%), followed by traffic injuries, 252 cases (24.7%); assaults, 24 cases (2.3%); falling objects, 23 cases (2.2%); sports injuries, 8 cases (0.8%); and others, 102 cases (10.0%). Of all falls, most involved a fall from the same level (42.7%) followed by from a low height (≤ 1 m) (36.9%) and from a great height (> 1 m) (20.4%). Traffic injuries were second in frequency, with pedestrians having the highest incidence rate, totaling 90 (36.1%), followed by those with motorcycle-related injuries 79 cases, (31.8%), those involving automobiles, 38 cases (15.3%), those involving bicycles 24 cases (9.6%), and others, 18 (7.2%). Falls and traffic injuries were the 2 major groups of external causes which accounted for 84.7% of all TBIs in preschool children (Table 1).

Upon the patient arrival at the hospital, the degree of severity of the TBI was determined; 83.6% of patients (815 cases) had a mild injury, 102 (10.5%) a moderate injury, and 58 (5.9%) had a severe injury. The outcome of TBI was determined using the Glasgow Outcome Scale (G.O.S.), and among these preschool children, there were 25 (2.6%) deaths, a vege-

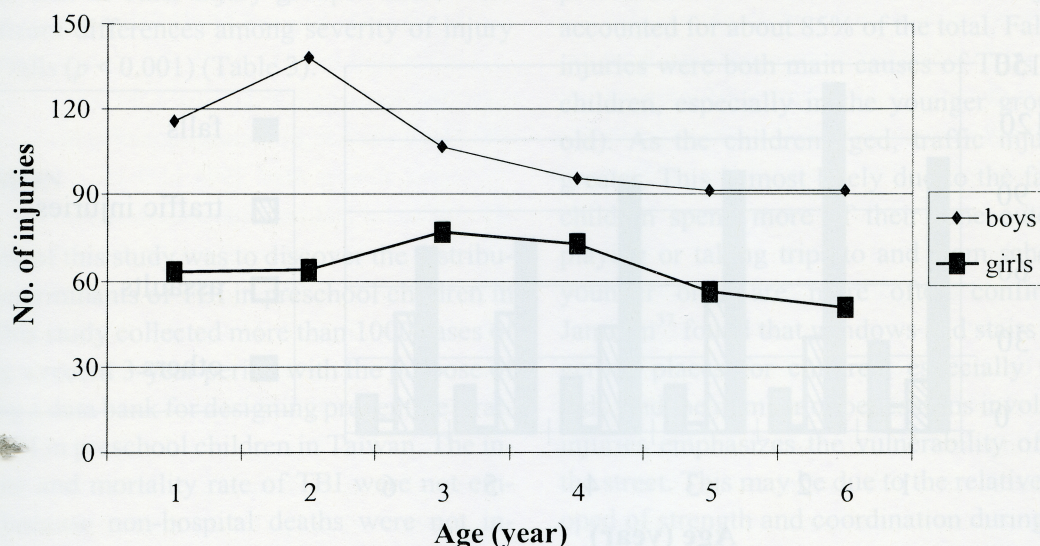


Fig. 1. Number of traumatic brain injuries in preschool children by age and sex.