correlation was found in patients with brain abscess with other parameters, this may be caused to the relative small number of patients studied. However, it has been observed that the mean hemoglobin in patients with brain abscess was 19.4500 ± 1.23234 and the mean hematocrit was 68.75 ± 4.8563.

Sastroasmono* noted that the prevalence of brain abscess or CVA was higher in patients with hemoglobin and hematocrit levels of more than 18 g/dl and 65%. This is accordance with the results of this study: mean hemoglobin in the group without complications of 17.9207 ± 1.7498, and 19.4500 ± 1.2234 in the group with a brain abscess, and a mean hematocrit of 68.75 ± 4.8563.

Conclusions

From the results of the study it has been shown that relative anaemia, polycythemia, and age 2-5 years are associated with the occurrence of cyanotic spells. It is possible that other factors may also be involved, however, other parameters such as platelet count, albumin concentration and nutritional status have not been studied. By using the multiple logistic analysis the probability of Tetralogy Fallot patients in developing cyanotic spells can be calculated as follows:

\[ P(X) = \frac{1}{1 + e^{-(0.0121 + 2.89 \times \text{relative anaemia} + 2.8678 \times \text{polycythemia} \times \text{age (2-5 year)}}} \]

Further investigations have to be performed in order to study other risk factors which may be associated with cyanotic spells, brain abscess or other complications.

By taking the risk factors into consideration it is possible to avoid complications during the pre-operative preparations in order to obtain optimal results.

References


Injury In Preschool-Age Children: A Population-Based Study

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ABSTRACT A study on the type and frequency of injuries in preschool-age children was conducted in a sample of households representing population of Purworejo district. A two stages cluster (wilch) method was used to select 4,354 preschool-age children living in 12,721 households in the district. The mother or other child caretakers provided responses about injuries occurring during the 3 months period to interview. Injuries were classified into 6 types: falls (5.5%), burns (2.4%), bites (0.4%), traffic accident (0.1%), poisoning (0.0%) and other injuries (0.0%). The types of injury which were typically observed were falls, burns, bites and traffic accidents. No significant differences in the frequency and type of injuries were observed between urban and rural areas. The relative frequency in age-grouped and type of injuries from this population-based study can be used in planning injury prevention especially for family health education program. [Paediatr Indonesia 1995; 35:231-235]

Introduction

Childhood injury is now being given appropriate attention due to childhood mortality and morbidity decrease: by advanced medicine in the health program. In some developed countries it becomes the main cause of death and disabilities in children. WHO together with other international, regional and national organizations develop activities toward a better control of childhood injury. This notable trend may not be well appreciated, especially in developing coun-
tries, because of incomplete of faulty collection of data and unrecorded. The study of childhood injuries and accidents is hampered by imprecise definition and misclassification. The terminology used is often subject to extensive discussions. Haddon & Baker define an injury as an energy (e.g., chemical, mechanical, thermal, electrical, etc.) transfer from a hazardous agent to a susceptible host in a conducive environment (physical and social) such that the host sustains physical damage.

The Indonesian National Household Surveys (1980, 1986, 1992) showed a decrease of most infectious diseases and prevalence of malnutrition. Consequently communicable diseases as major causes of mortality and morbidity will be replaced by non-communicable diseases. Some diseases or disorders are expected to increase during next 25 years including accidents, injuries, poisoning and pollution.

The present study describes the proportion and type of injuries in under-5 years old children in the community and compares the injury characteristics between urban and rural areas.

Methods

Data collection on injury in children was conducted in the Community Health and Nutritional Laboratory, Purworejo district, Central Java. The sample of the surveillance system was calculated approximately 13,000 households to cover the most of specific objectives, representative for the district’s total population of 729,825. A two stages cluster (wilayah) sampling method with Probability Proportional to Estimated Size (PPES) was used. Standardized questionnaires were used by trained, high school educated interviewers to collect the injuries occurring during the 3 months prior to interview. Injuries were grouped into 7 categories in accordance with the National Household Survey criteria. Place where to seek help concerning injuries were recorded besides age, sex and origin. The quality of data collection was monitored by field supervisors and completed a series of data checks in the field.

Data entry was equipped with error screening for data type, range and logical checks. Data analysis was performed with Epi Info version 6 computer program for frequency distribution and chi-square calculations.

Results

An amount of 4,345 preschool children living in 12,721 households was included in the study. Five hundred thirty four children lived in urban environment.

Table 1 showed that the majority of injuries were trauma by cutting or sharp object and falls. The frequency of injury episodes in the under 1 year, 1 year, and more than 1 year age group were 5.4%, 18% and 78.6% respectively. The typical injuries in the under 12 months olds were falls, that of in the age group of 12-23 months were falls and trauma, while in the older group varied (Table 2).

There were 60 injury episodes out of 534 children in the under urban compared to 518 cases among 3,920 children in the rural area. No statistical differences on its frequency and the type of injury were observed.

Discussion

In this study the events were based on recall over a 3-month period. Information ascertained retrospectively through mothers reports may be subject to bias due to differential recall pattern. There are two main reason for recall bias: 1) memory decay-the loss of information due to failure to recall the event, and 2) the telescoping effect-the tendency to remember events in the past as if they occurred closer to the present than they really did. Harel et al. showed significantly declining rates for a 1-month to a 12-month recall period. The largest declines were found for the 0-4 year-old age group and for minor injuries. Recall periods of between 1 and 3 months are recommended for use in population-based surveys.

The high frequency of injury due to fall (5.7%) in this district should be considered. Sixty four percent of the deaf children visiting the Ear, Nose and Throat Department of the Dr. Sardjito Hospital had reported history of falls from bed during their sleep. This may suggest the importance of preventive measures against falls.

Morbidity from falls is large and results in the most frequent cause to bring the children to the emergency room and lead an admission in United States. Injuries from stairs and steps predominate, while...
beds, tables, and chairs are also common injury vehicles in children aged 0 to 4 years. For older ages in this group falls from bicycles and heights are added. Grigorovic reported the commonest risk situations involved falling from settees (45%), cots (12%), prams (12%) and tables (4%). Burns and scalds occurred in 20% of the children with injury and wounds in 15%, namely wounded by falling objects such as broken-glass, knives, blades, or pens.

In this study on difference in the frequency and type on injuries was found between urban and rural settings. Thus one may conclude in the under 5 years olds were mostly influenced by home environment and road and traffic condition were comparable.

Injuries to the under-5 years children were fairly slight, no impact of injury was reported in this study. This impact could be measured by time in beds, hospitalization, limitations of activity or disability. Approximately 30% of injuries required care-seeking either to government or private health services in this district.

A developmental context to child behavior at different ages is helpful for preventive counseling. Topics on specific cognitive and physical limitations at a certain age should be communicated to presents in situations or activities that have a likelihood of injuries. The probability of the site of injury occurrence can be predicted.

Population based data on injuries can be used more clearly on opportunities for prevention. The prevention of injuries cannot be undertaken by health personnel alone but should of a multidisciplinary approach.

References