Five-Year Review of Patients Presenting with Non-Accidental Injury to a Children’s Emergency Unit in Singapore

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Abstract

Introduction: There is an increasing trend of physical child abuse cases reported in Singapore. Children presenting to the Emergency Department with injuries require a high index of suspicion for clinicians to distinguish those that are abusive in nature. Materials and Methods: A retrospective study of children with diagnosis of NAI presenting to KK Women’s and Children’s Hospital (KKH) from June 2011 to May 2016 was conducted. Results: There were 1917 cases reported from 1730 subjects, of which: 8.8% of subjects had repeat visits; 55.2% of cases were male; and mean age was 7.69 years. Racial demographics were: Chinese 45.5%, Malay 33.4%, Indian 15.4% and Others 5.9%. The most frequent injuries sustained were head and neck (50.8%), limbs (32.2%), and chest (5.7%). Of the type of injuries, 55% had contusions, 21% had cane marks, 16% had lacerations, 4.4% had burn marks and 1% sustained fractures. Males were more likely to be caned ($P < 0.001$); 54.9% of cases were admitted and 38.9% were discharged. Cases that presented without a parent ($P < 0.001$), were known to Child Protective Service ($P < 0.001$), or had a history of parental substance abuse ($P = 0.038$), mental illness in caregiver ($P = 0.021$), or domestic violence ($P < 0.001$) were more likely to require admission. Conclusion: Analysing these factors provide a better understanding of the presentation of NAI cases, including 'red flags' and vulnerable groups who should have better protection.