Dengue Shock Syndrome: Clinical Manifestations, Management and Outcome - A Hospital-Based Study in Jakarta, Indonesia

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Dengue shock syndrome (DSS) is one of the serious complications in cases of dengue haemorrhagic fever (DHF). Shock is the primary evidence in DHF, while other organs' involvement is secondary to shock. Depending upon the host's resistance and possibly the viral virulence, shock syndrome, if not managed, can prove terminal (irreversible). Early detection and prompt treatment can give a good prognosis. The objectives of this study are to show the clinical manifestations, case management and the outcome of DSS cases.

An observational, cross-sectional study was conducted on DSS cases hospitalized at the Paediatric Intensive Care Unit, Child Health Department, Faculty of Medicine, University of Indonesia, and Dr Cipto Mangunkusumo Hospital, Jakarta, during January-June 1998. The diagnosis of DSS was established by the WHO diagnosis criteria (1997)\(^3\) and confirmed by the haemagglutination inhibition serological test. Virus detection was done during the period of study by PCR examination. There were 188 DSS cases included in this study of which 46.1% were male and 53.9% female; 85% had good nutrition. The age group distribution was: 10 cases were below 1 year of age, 1-4 years old accounted for 29% while those above 10 years accounted for 15.40%. The highest proportion of the cases (40%) belonged to the 5-9 years age group. Those below 1 year of age had the highest mortality as compared to other age groups, while no one above 10 years of age died. Twenty per cent, 66% and 11% cases had primary, secondary and presumptive dengue infection, respectively. DEN-3 was the predominant serotype.

The deceased suffered from unconsciousness, tachycardia, tachyrea, decreased capillary refill, decreased body temperature, hypertension, and oliguna,
which were the major symptoms. Among the 188 DSS cases, 63.2% recovered from shock within less than 80 minutes. Thirty-nine cases suffered from irreversible shock, of whom 25 died. The overall DSS case mortality was 19.7%. Gastrointestinal bleeding, encephalopathy and respiratory failure were the most common causes of death, which was due to delayed treatment and hospital admission as referral cases without adequate treatment.

Reference