CLINICAL FACTORS ASSOCIATED WITH MORTALITY IN DENGUE INFECTION AT A TERTIARY CARE CENTER

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Abstract. We conducted a cross-sectional study to investigate the clinical factors associated with mortality in patients with dengue viral infection at a tertiary care center over a 3 year period. Six hundred ninety-nine patients with a clinical diagnosis of dengue fever (DF), dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) during the study period were included in the study. Data were collected with a predesigned form comprised of demographics, duration of fever, associated symptoms, diagnosis of DF, DHF and DSS, and laboratory parameters [complete blood count, coagulation tests, creatinine, serum glutamic pyruvic transaminase (SGPT)]; dengue IgM was checked in all patients by ELISA. Outcomes (survival/mortality) and complications were recorded. Mortality was the primary outcome measure. DF constituted 86.4% (604), DHF constituted 11.6% (81) and DSS constituted 2% (14) of patients. The mortality rate was 2.7% (19). The mean white blood cell count in those who died was 13.3, in those who survived was 5.3, the difference was significant (p=0.02). The mean BUN in those who died was 33.2, those who survived was 13.8, (p=0.007). The mean bicarbonate level in those who died was 17.1, those who survived was 18.5 (p <0.001). Mean activated partial thromboplastin time in those who died was 56.8, those who survived was 36.8 (p=0.01). The mean SGPT in those who died was 802, those who survived was 176 (p=0.01). Those who died were significantly (p <0.001) more likely to have severe hepatitis (63%) than those who survived (13.8%). On multivariate logistic regression analysis, having an SGPT > 300 mg/dl, bleeding, an altered mental status and shock at presentation were all significantly associated with mortality in patients with dengue virus infection (p=0.008, p<0.001, p<0.001, p<0.001, respectively).

Key words: dengue infection, mortality, associated factors

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