

Incidence, Risk Factors and Outcome of Renal Involvement in Patients of Dengue Viral Infection Admitted to a Tertiary Care Hospital in North-Western India: A single center, prospective observational study.

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Abstract

Dengue Viral Infection (DVI) has emerged as one of tropical belts' most common mosquito-borne diseases worldwide. This study was an attempt to evaluate the patterns of renal involvement in DVI and its effect on morbidity and mortality arising from the illness. This study was conducted on 170 patients hospitalized with the diagnosis of Dengue fever in the Emergency department of the Post Graduate Institute of Medical Education and Research, Chandigarh, from July 2022 to September 2023. All clinical and laboratory parameters of the patient were recorded. To evaluate patterns of renal involvement, patients underwent urine dipstick, urine routine and microscopy, spot urine protein/creatinine ratio, creatinine and ultrasonography. Patients with renal involvement were followed up for four weeks and 12 weeks. The median age was 36 years, with 60% male patients. A total of 51 patients (30%) had renal involvement, and 36 (21.17%) had Acute Kidney injury. Ten patients developed KDIGO Stage 3 AKI, of which 7 required renal replacement therapy. Forty-seven (27.6%) patients developed urinary abnormalities (which included proteinuria, hematuria, and active sediments in urine). Patients with renal involvement had significantly higher mortality (p-value <0.001). Among the patients who survived, renal abnormalities resolved in all except one, who progressed to chronic kidney disease. Renal biopsy was done in three patients, and cast nephropathy was seen in all. This study establishes that renal involvement accompanies higher mortality in patients with DVI, thereby underscoring the importance of its evaluation for the management and prognostication of patients.

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Figure 1 Renal Biopsy.docx available at <https://authorea.com/users/754850/articles/724636-incidence-risk-factors-and-outcome-of-renal-involvement-in-patients-of-dengue-viral-infection-admitted-to-a-tertiary-care-hospital-in-north-western-india-a-single-center-prospective-observational-study>

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