ABSTRACT

A study on thrombocytopenia and albuminuria as early predictors of Acute Kidney injury in snake bite.

Background:

Acute Kidney injury (AKI) is the most serious complication of the snake bite . Multiple factors determine like type of snake, co-morbidity, time to ASV administration et., determine the development of AKI. However, the association of early development of albuminuria and thrombocytopenia is not measured in Tamilnadu population. Our study aimed to measure the association of albuminuria and thrombocytopenia with the development of AKI in snake bite.

Methodology:

Fifty subjects with snake bite were divided into cases (with elevated RFT) and controls (Normal RFT) with 25 subjects/group. Baseline characteristics of all the patients were noted. Serum creatinine, blood urea, urine albumin and platelet count were measured. All the patients were followed up for the progression to AKI and outcome was noted.

Results:

No significant difference was noted with respect to age and gender between case and control group. The mean platelet count (lakhs/cc) was significantly lower in the case than control group (1.12 ± 0.38 Vs 1.7 ± 0.37; $p<0.0001$). The proportion of patients with thrombocytopenia is higher in case than control group (76% Vs 28%; $p=0.0016$; relative risk = 2.92 with 95% CI of 1.4 to 6). The proportion of patients developed albuminuria was higher in cases than control group (72% Vs 24%; $p=0.001$; relative risk = 2.78 with 95% CI of 1.41 to 5.4). The proportion of patient underwent dialysis is higher in case than control group (56% Vs 16%; $p<0.0001$)

Conclusion:

Albuminuria and thrombocytopenia are associated with development of AKI in patients with snake bite. Hence presence of albuminuria and thrombocytopenia can predict the occurrence of AKI at early stage.

Keywords:

Snake bite; Acute kidney injury; Albuminuria; thrombocytopenia; Dialysis