

CLINICAL AND LABORATORY PROFILE OF PATIENTS WITH ACUTE RENAL FAILURE IN SCRUB TYPHUS: EXPERIENCE FROM A TERTIARY CARE HOSPITAL IN NORTH WESTERN PART OF INDIA

Authors Prasad Dharmendra, Malhotra Vinay, Mathur Mohit, Garsa Rajesh, Agarwal Dhananjai, Beniwal Pankaj

Hospital SMS Medical College and Hospital Jaipur, Jaipur, India, 302004

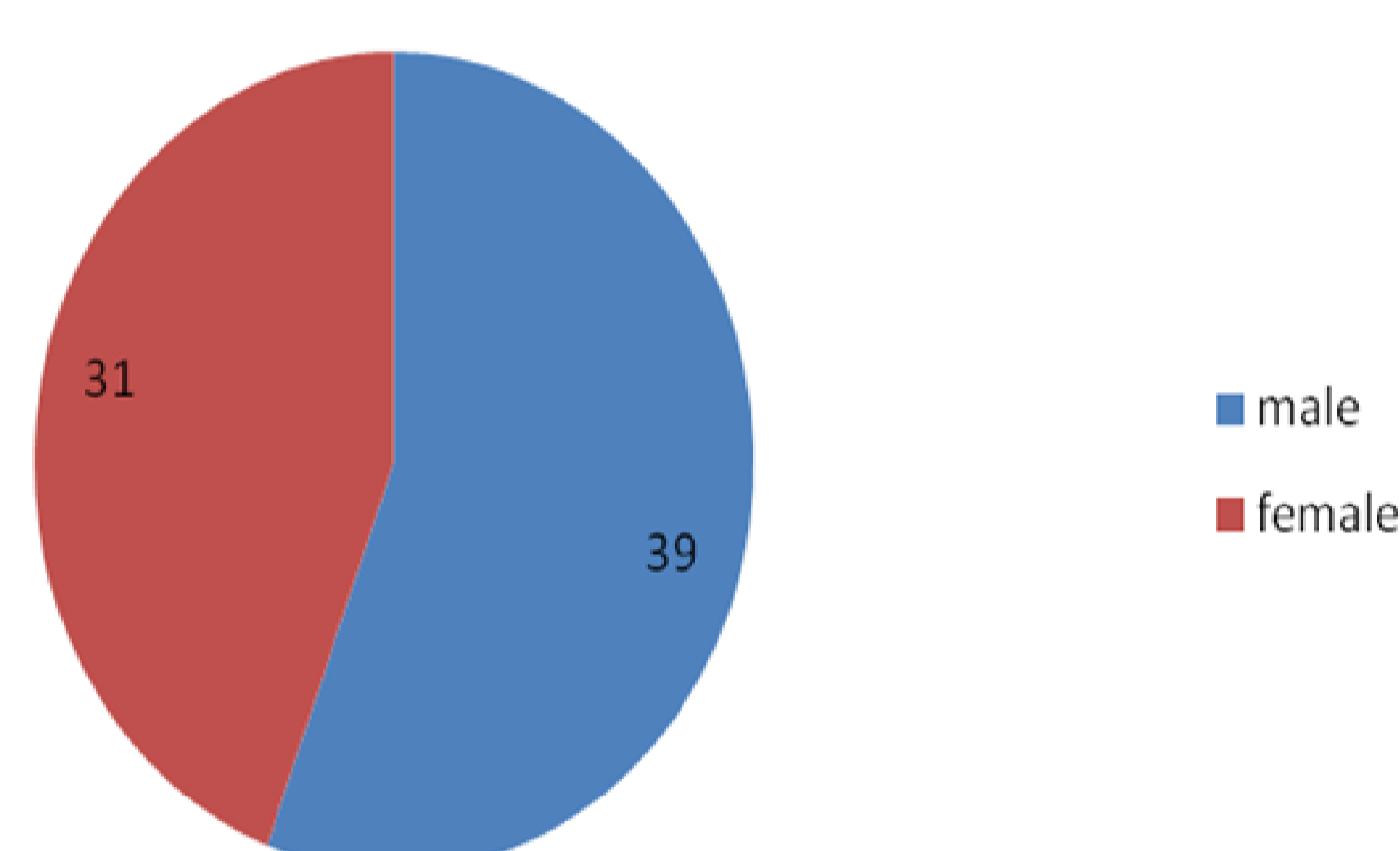
OBJECTIVES

Scrub typhus is a zoonotic acute febrile illness caused by *Orientia tsutsugamushi*. The aim of this study was to evaluate the clinical and various laboratory factors associated with acute kidney dysfunction in scrub typhus

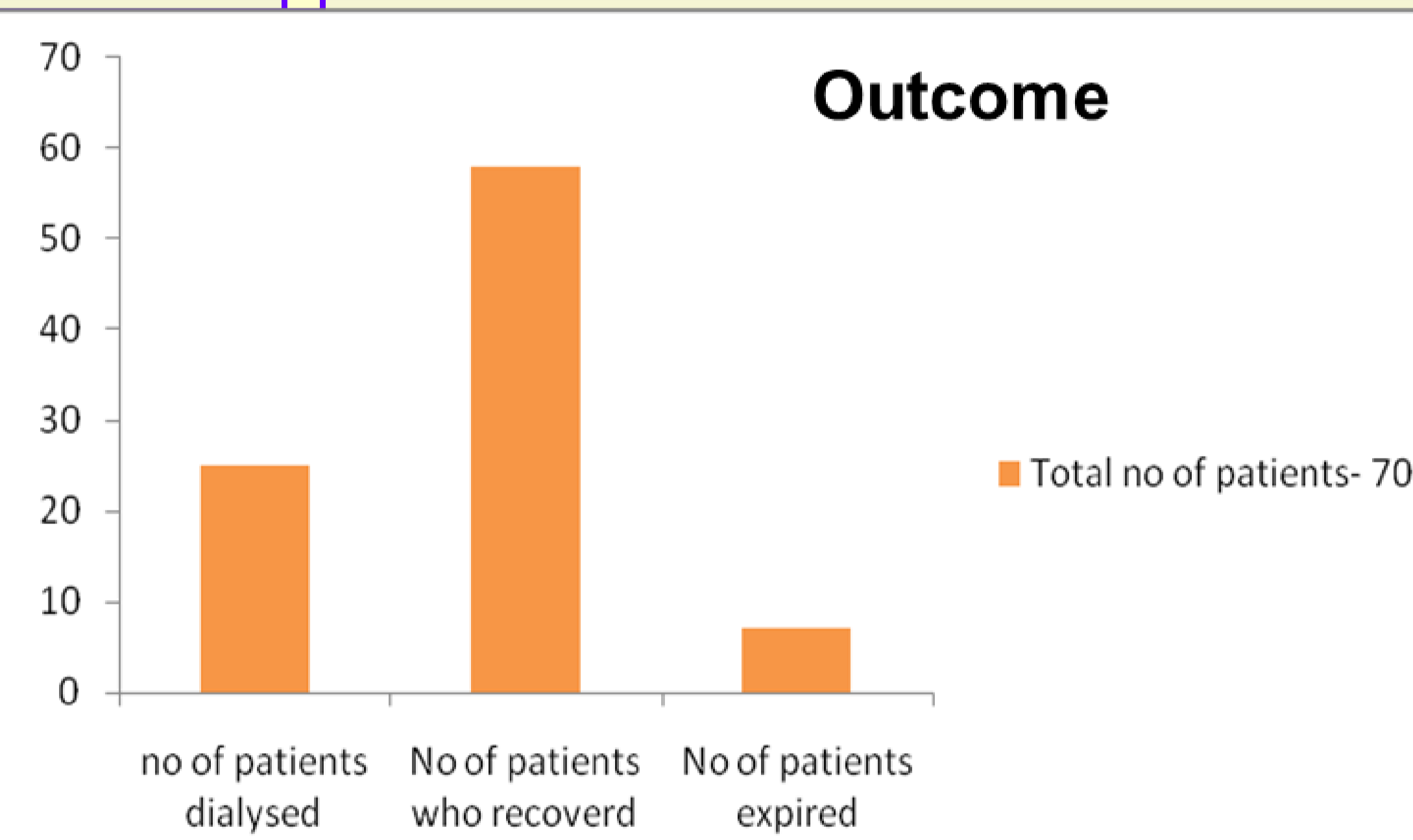
METHODS

We conducted a retrospective analysis on scrub typhus patients who were admitted in SMS Hospital, Jaipur, a tertiary care hospital in north western part of India between December 2012 and December 2013. Acute kidney dysfunction was defined according to latest KDIGO definition of acute kidney injury

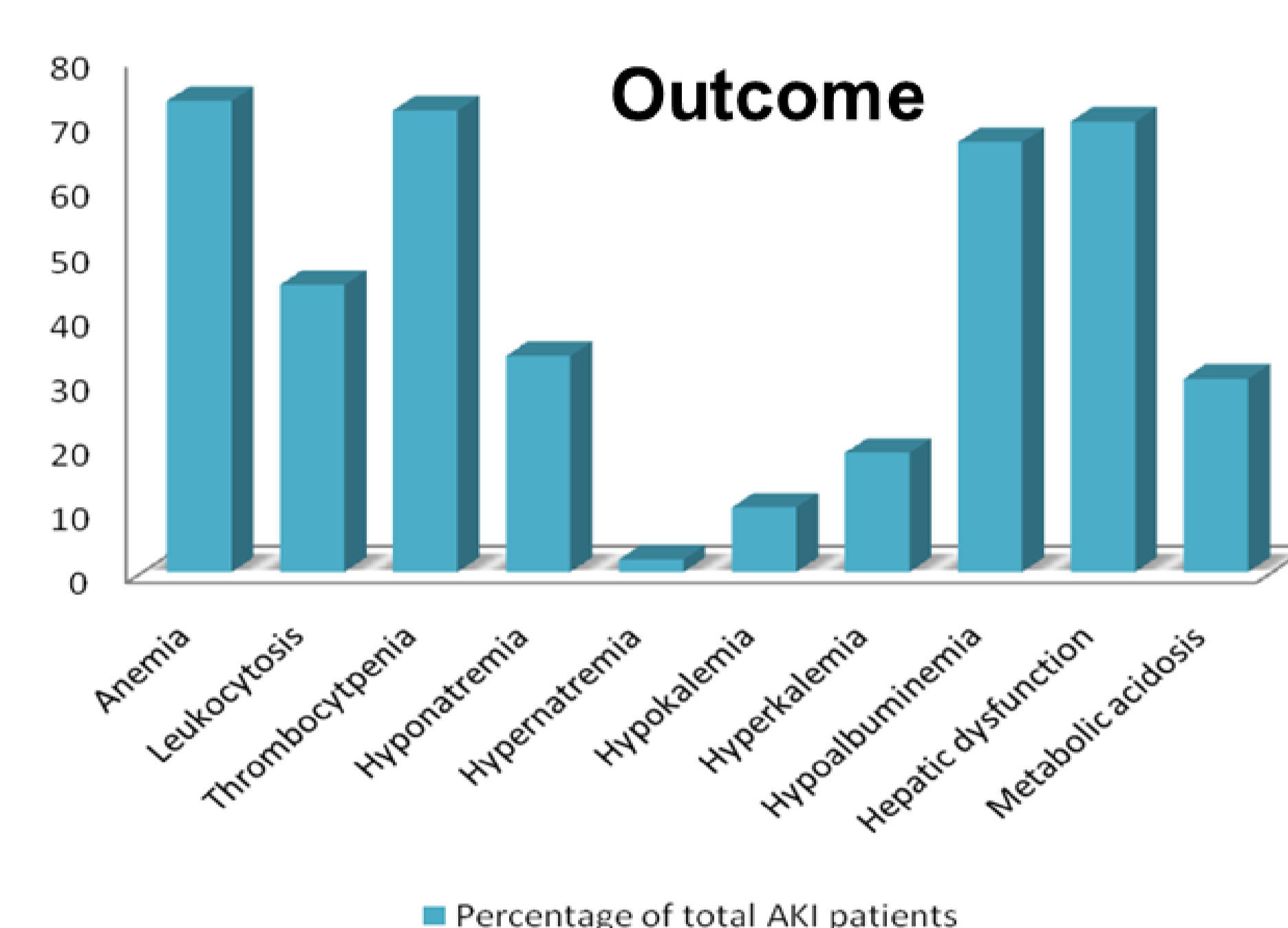
Demography



Outcome



Outcome



RESULTS

Of total 230 patients with scrub typhus, 70 (30%) patients had AKI. 55% were male and 45% were female. Mean age was 42.6 ± 15 years. The laboratory abnormalities were: anemia (73.2%), leukocytosis (44.6%), thrombocytopenia (71.7%), hyponatremia (33.6%), hypernatremia (1.9%), and hypokalemia (10%), hyperkalemia (18.5%), hypoalbuminemia (66.8%), hepatic dysfunction (70%) and metabolic acidosis (30%). Besides AKI, the others complications namely Hypotension (7%), septic shock (3.8%), pneumonia (12.4%), acute respiratory distress syndrome (ARDS) (11.5%), meningoencephalitis (6.9%), myocarditis (7%), disseminated intravascular coagulation (2%) and multi organ dysfunction syndrome (MODS) (15.4%) also developed during course of hospitalization in these patients. Forty (17.4%) patients required intensive care support (ICU) support and 25 patients were dialyzed (35.7% of total no of AKI). Out of 230 patients 215 (93.4%) patients survived. Total fifteen (6.5%) patients died. There was a significant difference in the age, various hematological & biochemical abnormalities, complications and need for ICU support in the non-survival group as compared the survival group. In the AKI group, seven (10%) patients have died, and serum creatinine levels of 58 patients were fully normalized at discharge or during follow up.

CONCLUSIONS

This study shows that AKI in scrub typhus is common findings and also carry poor prognosis. Besides renal dysfunction older age, severe thrombocytopenia, hypoalbuminemia, hepatic dysfunction and the complications such as ARDS, encephalopathy, MODS and need for ICU support are the factors associated with mortality in these patients

References

Yen TH, Chang CT, Lin JL, Jiang JR, Lee KF. Scrub typhus: a frequently overlooked cause of acute renal failure. *Ren Fail* 2003; 25(3):397-410

