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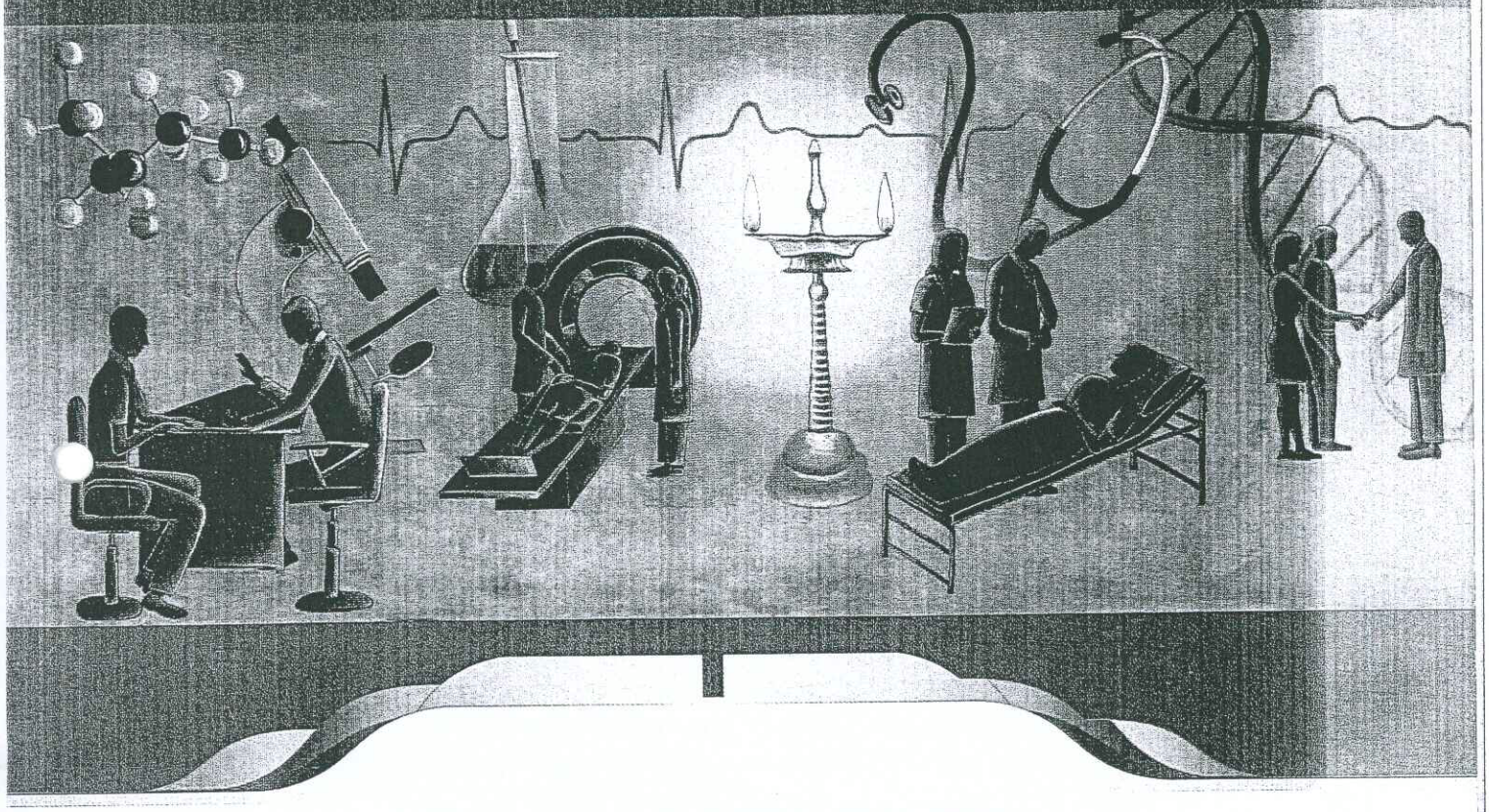

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AGE AS A DETERMINING FACTOR FOR DEVELOPMENT OF SEVERE LEPTOSPIROSIS: A COMPARISON OF DISEASE OUTCOME IN YOUNG, MIDDLE-AGED AND OLDER ADULTS

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Introduction and objectives:
Leptospirosis is a re-emerging zoonosis resulting significant morbidity and mortality among rural farming and urban communities. The study aimed to compare clinical and laboratory data among leptospirosis patients belonging to three age groups and to seek any association between age in disease outcome.

Methods:
This was a prospective study with leptospirosis patients (confirmed by MAT and/or PCR) admitted to tertiary care hospitals in Western and Southern provinces from 2012 to 2017. Patients were divided into three groups: young adults (age 18-35 years), middle aged adults (age 36-55 years) and older adults(age > 55 years). A comparison of clinical, laboratory data and outcome parameters were analyzed.

Results:
A total of 108 patients with leptospirosis (median age: 44 years, 91.6% of males) were included. Thirty patients belonged to young adults, 49 were middle aged adults and 29 were older adults. There was no significant difference in any of the selected clinical features (myalgia, jaundice, conjunctival haemorrhage, haematuria/oliguria, dyspnea) among three groups. There was a significant association with heamoglobin($p=0.001$), blood urea($p=0.047$), serum creatinine($p=0.041$) and CRP($p=0.004$) levels among three groups. Older adults had adverse outcomes of renal functions compared to other two groups. When pairwise posthoc analysis was done using Bonferroni adjustment there was a significant difference between young adults vs older adults in heamoglobin and CRP levels. Acute kidney injury, liver failure, ICU admission rate and mortality were found to be higher in middle aged and older adults.

Conclusions:
Based on findings of this study older age is suggested to be a predictor of severe leptospirosis.