Oral Presentation Abstract (OP35), 123rd Annual Scientific Sessions, Sri Lanka Medical Association, 2010 Colombo, Sri Lanka

Oral Presentation Abstract (OP), 128th Annual Scientific Sessions, Sri Lanka Medical Association, 6th-8th July 2015 Colombo, Sri Lanka

Poster Presentation Abstract (PP), 128th Annual Scientific Sessions, Sri Lanka Medical Association, 6th-8th July 2015 Colombo, Sri Lanka

citation

Proceedings of the Sri Lanka Medical Association, Anniversary Academic Sessions. 2015; 128: 224

INTRODUCTION AND OBJECTIVES: Leptospirosis is a zoonotic infection with significant morbidity and mortality. In this prospective study, we attempted to develop a model for diagnosis of leptospirosis. METHOD: Data was extracted from a prospective multicentre study. All patients with a suspected diagnosis of leptospirosis based on the WHO surveillance criteria were recruited. A derivation cohort and a validation cohort were selected. Positive MAT was used as the gold standard and significant associations in the derivation cohort were selected for construction of a multivariate regression model. Adjusted odds ratios were extracted for significant variables. ROC curves were generated. RESULTS: A total of 592 patients were included with 450 (180 confirmed leptospirosis) in the derivation cohort and 142 (52 confirmed leptospirosis) in the validation cohort. The variables in the final model were: history of exposure to possible source of leptospirosis (OR=2.878;95% Cl=1.527-5.425;p=0.001), serum creatinine>150u.mol/L (OR =2.742; 95% CN1.474-5.101; p=0.001), neutrophil differential percentage (on day 3 of illness) > 82.8% of total WBC count (OR 2.063; 95% Cl = 1.109 - 3.837; p =0.022), serum bilirubin > 27 U/L (OR = 1.767;95%CI 0.968 - 3.226; p=0.050) and platelet count (on day 3 of illness)< 85,000/mm3 (OR=2.350; 95%CI=1.281 -4.313;p=0.006). The Nagelkerke R2 was 0.654. ROC analysis demonstrated a diagnostic model score >14 to have a sensitivity of 80% and a specificity of 60% in the diagnosis of leptospirosis against MAT as the gold standard. CONCLUSION: This proposed diagnostic model for diagnosis of leptospirosis is of potential value to clinicians treating acute febrile illness in areas with limited diagnostic facilities.