Elecated levels of IL-8 in fatal leptospirosis

ABSTRACT

Leptospirosis causes a wide range of clinical outcomes, including organ failure and death. Early treatment significantly increases the chances of cure. Interleukin-8 (IL-8) is a chemoattractant cytokine for neutrophil and is associated with multiple organ failure. Research has indicated IL-8 to be raised in severe and fatal cases of leptospirosis, but its suitability as a prognostic biomarker has yet to be confirmed. This study aimed to evaluate the significance of IL-8 with the clinical outcomes of leptospirosis patients. Plasma IL-8 was measured in fifty-two samples from hospitalized patients and nineteen healthy controls. The comparisons were made between mild, severe-survived and fatal groups identified by clinical or laboratory findings. IL-8 was significantly higher in fatal ($p = 0.01$) compared to mild cases. IL-8 was also significantly higher in fatal ($p = 0.02$) when compared to survived cases of leptospirosis. IL-8 levels in the plasma of fatal leptospirosis cases were significantly elevated compared to survived cases and may serve as a potential prognostic biomarker in determining the possible outcome of leptospirosis patients.

Keyword: IL-8; Cytokines; Leptospirosis; Clinical outcomes; Malaysia