

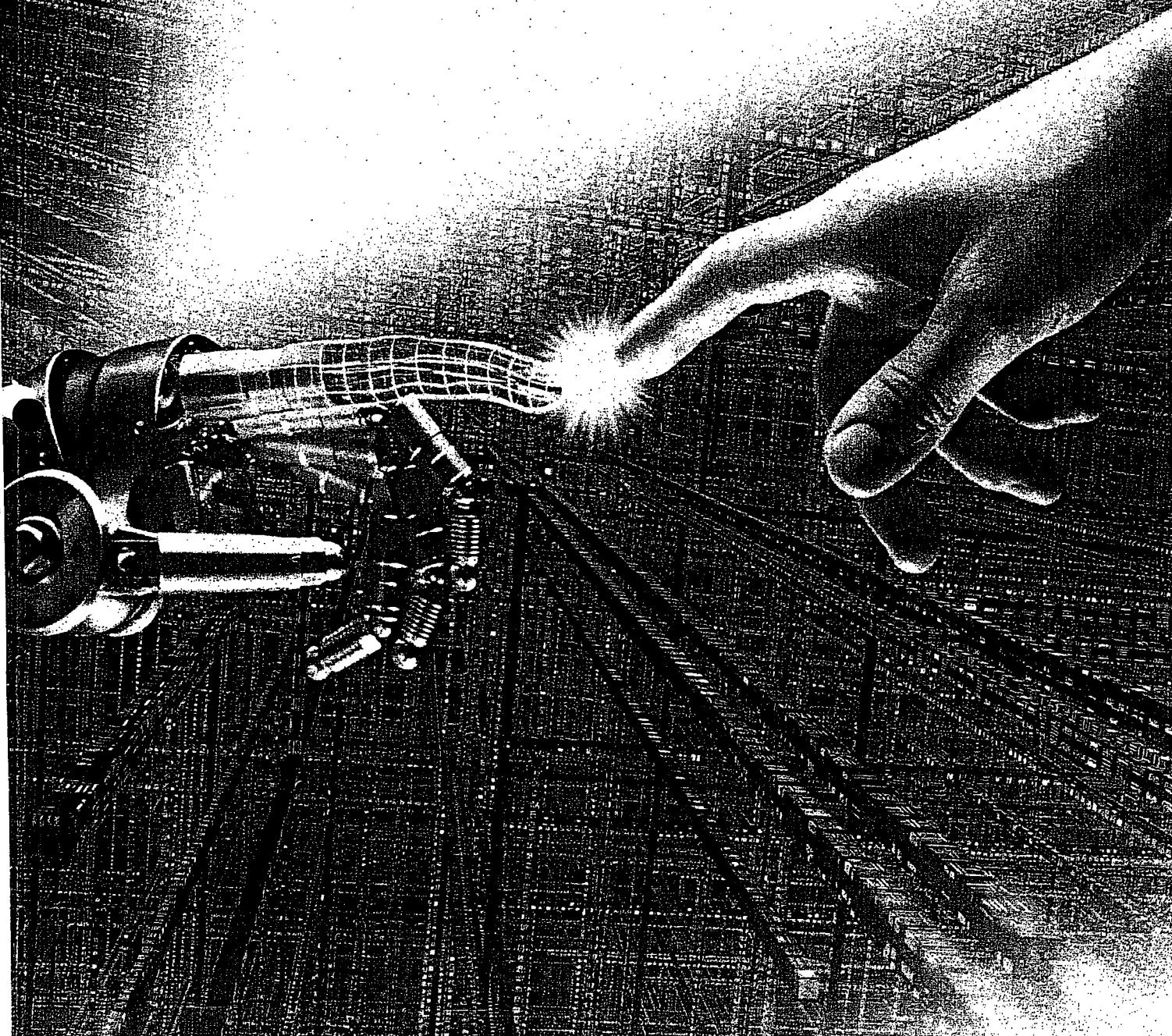
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**PP 03****Title: Serum cytokines: a potential biomarker in leptospirosis?**

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**Objective**

Objective of this study is to compare the levels of five cytokines IL-10, IL-17A, IL-21, IL-23 and TNF- $\alpha$  in patients with confirmed leptospirosis and in a group of healthy controls.

**Method**

Patients with a confirmed diagnosis of leptospirosis were recruited from a tertiary care hospital (n=26). A group of healthy individuals (n=12) were selected as the non-leptospirotic healthy group. Blood (3ml) was collected from each subject and separated serum was used for ELISA assays to determine the serum cytokine levels of IL-10, IL-17A, IL-21, IL-23 and TNF- $\alpha$  following the manufacturer's instructions. Significance was tested using the Mann Whitney U test and a p value < 0.05 was considered as significant. Ethical approval for the study was granted by the Ethical Review Committee, University of Sri Jayewardenepura.

**Results**

A significant elevation in serum IL-21 (p = 0.002), IL-23 (p = 0.002) and TNF- $\alpha$  (p = 0.039) were observed in patients with leptospirosis compared to the healthy individuals. However, while an increase in the levels of serum IL-10 (p = 0.327) and IL-17 (p = 0.157) was observed in leptospirosis patients no significant difference was seen among the two groups.

**Conclusion**

Data suggest that serum IL-21, IL-23 and TNF- $\alpha$  are significantly elevated in patients with leptospirosis. Further studies with greater sample size are required to extrapolate these results.