

Original Paper

Application of micro agglutination test in detecting serovars of *leptospira*

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Abstract

Background and Objective: Leptospirosis is an infectious and zoonosis disease, which is caused by *leptospira* and is transmitted from animal to human. The rapid diagnosis can control the disease, therefore this study was carried out to determine the prevalent serovars of *leptospira* using micro agglutination test (MAT) in human and cattles.

Method: In this descriptive study, 175 cattles and 67 suspected human serum samples were tested in five provinces in Iran during 2011-12. Serum samples tested by micro agglutination test using 20 live leptospira serogroup.

Results: Ninety nine out of 175 (56.5%) cattle serum samples and 31 out of 67 (46.2%) human samples were positive against *leptospira* antigen. The most prevalent *leptospira* serovar in cattles and human were *Serjoe hardjo* (61.9%) and *Serjoe serjoe* (23%), respectively. The most frequent titer in positive samples was equal to be 1/400. Fifty percent of human positive samples belong to farmers between 20-40 years old. The common contaminations belong to polluted water (61.1%) and infected blood (28.3%), respectively.

Conclusion: Using micro agglutination test, the most prevalent *leptospira* serovar in cattles was *Serjoe hardjo* and in human was *Serjoe serjoe*.

Keywords: *Leptospira*, Leptospirosis, Micro agglutination test, *Serjoe hardjo*, *Serjoe serjoe*, Farmer

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