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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