

The epidemiology of leptospirosis in Guilan province - 2003

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Abstract

Background&Objective: Leptospirosis is most widespread Zoonosis in the world and is more prevalent in tropical and temperate regions. In most of Iran, climatologic and ecological conditions are unfavorable for leptospirosis to play an important role as a public health problem. However; this does not count for the neglected flat area of Guilan province which presumably represents a region with a high incidence of human leptospirosis. This area has a subtropical climate with mainly farmers as inhabitants. By far the most important agricultural activity is rice farming. Most of farmers used to keep domestic animals in their houses and rodents are abundant.

Materials&Methods: To find evidence for a high incidence of leptospirosis in the Guilan province, we collected blood samples from patients who attended one of the three big general hospitals in the province with clinical symptoms consistent with leptospirosis in 2003. All sera were stored at -20°C until examination by ELISA and MAT. All patients whose serum had titers ≥ 160 against at least a pathogenic serovar in MAT and had titer $\geq 1:160$ in IgM-ELISA were regarded as confirmed positive cases (70 from 282) and their demographic and epidemiological data were analyzed.

Results: Results from our study demonstrate that leptospirosis is mainly a disease of predominantly males (62.5%), occurring in high incidence in villagers (89.5%) during the warm season (100%) notably in September that is time of harvesting (42.90%).

Conclusion: In addition it is an occupational disease affecting rice about 90% field workers.

Key Words: Leptospirosis - Epidemiology - Guilan province