

Prevalence of Human Leptospirosis in Guilan Province During Three Months Ordibehesht to Mordad 1390 (April To August 2011)

Safar Ali Alizadeh*¹; Saeed Eshraghi²; Parviz Alaei³; Simin Hoseini³; Mahmood Rezvani³; Alireza Rasaei³; Alireza kramati³

1-PhD Student of Medical Bacteriology, Tehran University of Medical Sciences Tehran, Iran

2- Tehran University of Medical Sciences, Tehran, Iran

3-Central Lab. Hygiene Center of Guilan, Guilan University of Medical Sciences, Guilan , Iran

alizadeh120@yahoo.com

Background & Objectives: Leptospirosis is a bacterial disease caused by pathogenic Leptospire. It can infect people through contact with an environment contaminated by the urine of a shedder host, such as rodents. This disease is one of the important zoonoses in the world. It is more prevalent in tropical and temperate regions especially in areas with moist climate and is usually endemic in these regions. Rodents as well as wild and domestic animals are main reservoirs and human is accidental host. In Iran, human leptospirosis is prevalent and endemic in Guilan province, a flat area located in the north of Iran, and south of the Caspian Sea, with a humid temperate climate, where the rice farming is the main agricultural activity in villages and cattle husbandry is also common. This study was conducted to investigate the prevalence of Leptospira species in Guilan Province of Iran by using IgM and IgG Elisa methods.

Methods: In 2011 , during April to August 2011, A total of 326 serum samples of patients suspicious of leptospirosis admitted to hospitals in Rasht city and other cities of Guilan Province (North of Iran) were examined for sero-diagnosis of leptospirosis by commercial Elisa assay. Blood samples were obtained with mean time of 6 days after the onset of the symptoms. We examined 326 sera by a commercial IgM and IgG ELISA kit to find positive cases .

Results: The results of commercial ELISA assay have demonstrated that 112 serum samples (34.3%) had a positive reaction.

Conclusion: It seems that leptospirosis has a high occurrence in Guilan province and is mostly distributed in warm months of the year. Demographic analysis of the results indicates that leptospirosis is typically a rural and an occupational disease in the area

Keywords: Leptospirosis; Iran; Guilan