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**Title:** Sero-diagnosis of Leptospirosis in high risk group population of Somesara City, Guilan province by Indirect immunofluorescent antibody technique (IFA).


**Abstract:**

**Background and objectives:** Leptospirosis is a widespread zoonosis in the world and is more prevalent in tropical and temperate regions. In Iran, Guilan, Mazandaran and Golestan provinces are seen as endemic. Rural areas with paddy and livestock, has more prevalent cases of leptospirosis. Leptospirosis cases are often seen in the beginning of rice planting (April) and at the end of harvest season (September). The purpose of this study is serodiagnosis of leptospirosis in high risk group population of Somesara City.

**Materials and methods:**

99 sera from admitted patients who were suspected with Leptospirosis in Imam Hospital and 100 sera from different labs in the city of Somesara as Control sample were collected and questionnaires were completed. The serological method in this study was indirect immunofluorescence (IFA).

**Results:**

16 sera from 199 samples (8%) in IFA test were positive of which 14 cases were IgM positive and 10 cases were IgG positive. Epidemiological data showed that 8.9% and 7.1% of positive cases were males and females respectively. The prevalence rate of the disease among rural and urban men, rural female were 12.12%, 2.9%, 12.8%. There was no positive case among urban women.

**Conclusion:**

Leptospirosis was found in men with no education to secondary education and in illiterate women. Age and job distribution of positive cases indicates that leptospirosis is found in all age groups and is more prevalent in middle ages and farmers. Mild weather, high surface water (as the main source of irrigating rice field), large population of rodents and wild animals in nearby villages, farming and livestock (as main economic activity) favor high incidence of leptospirosis. It seems that leptospirosis has a high occurrence among farmers, male and villagers. The symptoms of leptospirosis are similar to several other infectious diseases such as melioidosis, rickettsiosis, hantaan virus, dengue hemorrhagic fever, enteric fever. Sometimes patients might have co-infection or cross reactive antibodies. The correct and speedy diagnosis of leptospirosis in laboratory will improve patient treatment.

**Keywords:** Leptospirosis, IFA, Zoonosis, seroepidemiology, Guilan

**Presentation:** Poster