

Seroprevalence of Leptospirosis in Livestock Slaughterhouse Workers in Zanjan Province, in Iran.

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Background & Objectives: Leptospirosis is one of the most important zoonoses with worldwide distribution. Rodents and wildlife are the major sources of the infection which can excrete *Leptospira* in their urine. Human infection in slaughterhouse is accidental and usually occurring after direct contact with urine from infected animals. The microscopic agglutination test (MAT) is the gold standard test for serological diagnosis of the Leptospirosis.

Epidmiological study of *Leptospira* in livestock slaughterhouses workers of zanjan province, in Iran and this study is the first report of *Leptospira* in province.

Methods: The study was made workers of the slaughterhouses of Zanjan Province in spring 2011. A total of 102 serum samples were collected from slaughterhouses. Serum samples were tested for pathogenic leptospiral antibodies by MAT with 20 alive leptospiral seovars.

Results: The results of this study showed that the 40.2% workers sera showed positive serological reaction against leptospiral antigens. The most common serovars were *L. Serjoe hardjo*, *L. grippotyphosa* and *L. canicola* respectively. All positive samples were identified in 1:200 titre. 70% of the positive sera belonged to the subjects between 30 and 50 years of age and other 30% belonged to those with an age of less then 30 years. 70% of the positive samples to the subjects with employment records between 10-30 years.

Conclusion: The results of this study indicates that leptospiral infection is magnified inslaughterhouse workers in Zanjan and Leptospirosis is an occupational disease and slaughterhouse workers are more at risk of contamination with different strains of *Leptospira* and developing this infection which leads to transmission of contamination to protein and nutrient cycling.

Keywords: Slaughterhouse Workers; Seroprevalence; *Leptospira*; MAT; Zanjan Province