

Abstract

Leptospirosis is a worldwide zoonosis, especially in tropical and subtropical regions. The infection is acquired through contact with urine or tissues from animal reservoirs or environment contaminated by their urine. Leptospirosis is still an ignored disease in Taiwan. However, some sporadic cases have been reported in recent years. To realize the true prevalence and risk factors of leptospiral infection in Taipei city, we performed this community-based study. In 1999, 519 residents in Shilin and 500 residents in Peitou districts were enrolled. All sera of these residents were tested for IgG antibody against *Leptospira* and the 519 sera from Shilin were also tested for IgM antibody using commercial ELISA kits. Telephone visiting completed questionnaires to all 1019 subjects, which included age, sex, occupation, travelling history, pet's ownership, source of household water, and medical history in recent one month. χ^2 test and logistic regression analysis were used to analyze the relationship between seropositivity and some possible risk factors of leptospiral infection. The seroprevalence rates were 8.5% in Shilin and 22.8% in Peitou. The seroprevalence rates increased with age and some residents got this infection in their very early lives. Resident district, age, and sex were independent risk factors for leptospirosis. No occupation or travelling to locales at risk was found. Dog ownership might play a role in leptospirosis but the statistic evidence did not reach statistic significance. Only one of 519 sera from Shilin was positive for anti-leptospira IgM. Our results revealed leptospirosis is a common disease in Taipei city; this disease should be kept in mind during daily medical practice. In addition, because exposure at home (pet dogs or rats) may be the major transmission route in the city, the general preventive measures should include vaccination of pet dogs and rodent control.

On the other hand, we also tested samples collected from 116 children with aseptic meningitis. Of the 114 CSF tested, 3 were positive of leptospirosis DNA; of the 91 sera tested, 4 were positive of IgM against leptospirosis. Two of them were positive for both CSF DNA and serum IgM. The overall positive rate of leptospirosis in children with aseptic meningitis was 4.3% (5/116).

Key Word : Leptospirosis 、 Taiwan 、 Seroepidemiology 、 Aseptic meningitis