Epidemiological characteristics and temporal trend of human and bovine brucellosis cases, Southern Iran, 2009-2016

VAHID RAHMANIAN, KARAMATOLLAH RAHMANIAN, ELHAM MANSOORIAN, *ABDOLREZA SOTOODEH JAHROMI, ABDOLHOSSEIN MADANI*

ABSTRACT

Aim: To determine temporal trend of human and bovine brucellosis cases in southern Iran, 2009-2016. **Methods:** In this descriptive-analytical study, demographic and epidemiological data of all cases of human and bovine brucellosis reported and recorded by the relevant special care systems were enrolled, 2009-2016. Data analysis was carried out using SPSS-18.
Results: The average annual incidence of new cases of human brucellosis, during 2009 to 2016 was 17.12 per 100000 populations and the incidence of bovine brucellosis was reduced from 17.6 per 100000 head of cattle in 2010 to 0 incidence rate in 2013 that showed a downward trend. Male patients accounted for 65.6% of 1140 patients with human brucellosis. A total of 79.7% of patients lived in rural areas and human brucellosis had the highest prevalence rate in 31-40 (56 patients=18%) and then 21-30 years' age groups (55 cases=17.7%). The highest prevalence rate was observed among livestock breeders (26%) and housewives (15.8%), respectively. Pearson correlation coefficient of (P=0.002, r=0.3), (P=0.006, r=-0.28) and (P=0.03, r=-0.79) was respectively obtained between number of cases of brucellosis and average monthly temperature, number of cases of brucellosis and the average relative humidity, the number of cases of bovine brucellosis and coverage percentage of bovine brucellosis vaccination. **Conclusion**: Malta fever is an occupational disease in Jahrom city, therefore, it is recommended to continue and strengthen dairy industry improvement and development program and livestock vaccination program, besides health education programs, as a strategy to prevent the disease in humans.

Keywords: Malta fever, Bovine brucellosis, Epidemiology