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Brucellosis Among Horses in Shiraz-Iran: A Seroprevalence Study and Control Strategy

Y. Tahamtan[1,*], M.M. Namavari[1], O.R. Amrabadi[2], M.R. Tahamtan[3]

[1] *Razi Vaccine and Serum Research Institute-Shiraz, Iran, Shiraz, Iran (Islamic Republic of)*
[2] *Iranian Veterinary Organization, Shiraz, Iran, Shiraz, Iran (Islamic Republic of)*
[3] *Medical School, Shiraz University, Iran, Shiraz, Iran (Islamic Republic of)*

Equine Brucellosis was first identified in the beginning of 20th century. Naturally acquired Brucella infection in horse associated with infected animals. This disease is the cause of economic losses in animal. The brucellosis diagnosis is based on clinical features and the results of laboratory tests like standard tube agglutination test.

One hundred and twenty samples of all animals were taken from 27 villages during January to May 2007 located in southern part of Shiraz-Iran. Serum was tested using Rose Bengal (RBT) and tube agglutination test (TAT) by 2-ME. A questionnaire animal owner was carried out for risk factors. These included land tenure horse with other animal, sources of water, and the presence of animals from different places.

The seroprevalence of brucellosis varied significantly from a low (0%) to a high (12%) in various parts of the state. The study also investigated the prevalence of horse population in different districts. A correlation and regression analysis was carried out for prevalence of disease in various districts in relation to the horse population in these districts. There is no correlation between disease and horse population ($P = 0.6$). In our study 10 serum sample had positive results in both the RBT and TAT. These results demonstrated that horse is not a reservoir of brucellosis at least in the southern region of Iran. Nearly every cases of human brucellosis have an animal origin and, therefore, control is primarily a veterinary responsibility. Even after more than a century for the first description, no major country has been able to eradicate the disease. Although test and slaughter is a strategy program for eradication. In conclusion, when the disease existence in horse, which is not as a reservoir, it is concern for human public health. According to the results obtained, it was concluded that vaccination is important and should be continued fastidiously for animals.

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Prevalence of Brucellosis in Equines of Mshhad-Iran

M.M. Namavari[1,*], G.H.R. Mohammadi[2], M.R. Tahamtan[3], Y. Tahamtan[4]

[1] *Razi Vaccine and Serum Research Institute-Shiraz, Iran, Shiraz, Iran (Islamic Republic of)*
[2] *School of Veterinary Medicine, Mashhad University, Iran, Mashhad, Iran (Islamic Republic of)*
[3] *Medical School, Shiraz University, Iran, Shiraz, Iran (Islamic Republic of)*
[4] *Razi Vaccine and Serum Research Institute-Shiraz, Iran, Shiraz, Iran (Islamic Republic of)*

Brucella which preferently infects cattle, swime, sheep and goat. They can infect the equine according to animal host. Equines brucellosis always has found in clinical cases, but there are no many epidemiologic patterns. Studies relation to brucellosis has focused on cattle, sheep, and goats. However, some epidemiological surveys have been carried out to investigation of no domesticated ruminants, such as horse.

From January to May 2007, 120 horses were screened for brucella infections in Mashhad-Iran by the Rose Bengal and Tube Agglutination Test (RBT, TAT). Blood samples were obtained by venous puncture and transferred to the laboratory under child conditions as soon as possible.

Sera from three horses were found positive by RBT and TAT, therefore the prevalence rate (PR) is 2.5 percent. The sample from two stallions that gave a positive reaction in the RBT also had a positive result in the TAT (PR: 2.6%). The positive stallions had no clinical signs related to brucellosis. Just one mare had positive reaction with both test without any clinical sign (PR: 2.3%).

In country of Iran, brucellosis was reported in almost all domestic animals, particularly cattle, sheep and goats. Close contact between horses that affect from brucellosis such as cattle, sheep and goat and susceptible hosts constitutes a potential dispersion method for the organism. Although in our study three serum sample had positive results in both the RBT and TAT, the results were considered in epidemiologic analyses were carried out in other horses in the same environmental conditions.

In some countries, the test and slaughter policy together with the vaccination of young females is adopted, in others, particularly with regard to sheep and goats; mass vaccination has been recently started. The zoonotic aspects of brucellosis from horse must, therefore, be considered so, the disease is important from the public health standpoint.

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Prevalence and Distribution of Peste Des Petits Ruminants Virus Infection in Small Ruminants

H. Khan[1,*], M. Siddique[1], Q. Ali[2], M. Akhtar[1]

[1] *University of Agriculture, Faisalabad, Pakistan*
[2] *National Veterinary Laboratory, Islamabad, Faisalabad, Pakistan*

Peste des petits ruminants (PPR) is an acute febrile viral disease of small ruminants characterized by muco-purulent