


XXXII INTERNATIONAL CONGRESS ON MICROBIAL ECOLOGY AND DISEASE

Abstract Proceedings



Organized by the
SOCIETY OF MICROBIAL ECOLOGY AND DISEASE (SOMED)
Greece, 6-10 September 2010

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Screening of bovine leukemia virus (BLV) infection in bulk tank milk of dairy cattle herds of Mashhad area of IranA. Haghparast^{1,3}, G. Mohammadi², N. Kord³¹Immunology Section, Department of Pathobiology and²Department of Clinical Sciences, Faculty of Veterinary Medicine,³Institute of Biotechnology, Ferdowsi University of Mashhad, P.O.Box: 91775-1793, Mashhad-Iran, e-mail: alireza.haghparast@gmail.com

Bovine leukemia virus (BLV), a member of retroviridae, is an oncovirus that causes a chronic infection in cattle. Enzootic Bovine Leukosis (EBL) causes significant economic loss associated with the costs of control and eradication, loss in milk production and difficulties in exports. There are a few serological tests for detection of BLV infection such as AGID and ELISA. ELISA has advantages over AGID and has been approved by OIE. This study was performed by an indirect ELISA technique to determine the presence of antibody against BLV in bulk tank milk of dairy cattle herds of Mashhad and suburb. Totally, 92 bulk milk samples, which were taken from dairy herds of Mashhad area in summer-2009, were used in this study. After ELISA test on milk samples, 41.3% of the examined samples showed positive reaction. The positive results in East and Western region of Mashhad were 40.57% and 43.4%, respectively. Moreover, the prevalence of BLV in bulk tank milk of the dairy herds with less and more than 100 cattle per herds were 32.8% and 73.6%, respectively. Statistical analysis revealed a direct correlation between herd size and BLV infection, but did not indicate a direct correlation between geographical location of herds and BLV infection. However, industrial dairy herds showed significant difference with non-industrial herds in terms of BLV infection. In other words, the BLV infection was higher in industrial dairy herds as compared to non-industrial herds. The results presented in this study indicate a high prevalence of BLV infection among dairy cattle herds in Mashhad area. Therefore, control strategies based on test and implementation of improved management should be taken into consideration in order to control and eventually eliminate this economically important disease.

Keywords: Bovine leukemia virus, Bulk tank milk, Mashhad, Iran