Abstract

Introduction. Enzootic bovine leukosis is a highly infectious disease caused by a deltaretrovirus of the retroviridae family, which affects bovines of all ages and that generates a high economic impact on the dairy herds. This is caused by the high costs of symptomatic treatments, premature deaths and replacement of ill animals, the reduction of the milk production and the restrictions of importation and exportation imposed by some countries. Objective. To determine the prevalence of bovine leukemia virus (BLV) in its two different forms of disease presentations (persistent lymphocytosis and lymphosarcoma) and the factors associated with the seropositivity of the virus in dairy herds from Pasto, Nariño. Materials and methods. The study included six specialized dairy herds from Pasto, Colombia. A total of 242 blood samples were taken from 24 months of age or older cows and were analyzed using the indirect ELISA test to determine the seropositivity. The management practices were evaluated in each herd and an analysis binary logistic regression was used to find associations with seropositivity. Results. A seroprevalence of 19.8% was determined. Out of 48 positive animals, 13 had a total count over 10000 leukocytes/mm3, and 6 of these (12.5%) developed persistent lymphocytosis (PL) according to their age. No cases of lymphosarcoma or malignant lymphoma were found in the study. Concerning the management practices, the replacement of animals in different herds or in livestock fairs is associated to farms with a higher prevalence. Conclusions. Surveillance programs for dairy herds should include diagnostic tests for BLV. Only a small number of animals show consistent changes with lymphocytic or clinical disease. In addition, early diagnosis allows efficient control programs in the replacement of animals and it also prevents the spread of the virus in dairy herds.

Keywords

Bovine leukemia, dairy herds, persistent lymphocytosis, lymphosarcoma.