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EPG was recognized from 2~3 weeks after ingestion.

A small number of adult worms were recovered from Mongolian gerbils, but not from mice (ICR, BALB/cA nu/nu: nude mouse, BALB/cA nu/+).

SEROEPIDEMIOLOGICAL SURVEY FOR BOVINE LEUKEMIA VIRUS IN DAIRY AND BEEF CATTLE IN JAPAN

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Bovine leukosis is a contagious disease caused by a bovine leukemia virus (BLV). The purpose of the present study is a seroepidemiological survey and detection of the BLV in Japan. The survey covered 5,707 dairy cattle in Hokkaido, 1,774 beef cattle in the Towada area in Aomori Prefecture and 1,113 beef cattle in the Hida area in Gifu Prefecture.

1) In Hokkaido, the survey was performed in 1974 to 1975 and in 1977, and the reactors were 3.3 % and 8.8 % of cattle, respectively. The survey was performed in 1977 and 1978 in Towada area, where multiple cases of bovine leukosis have been reported, and the positive percentages were 32.2 % and 44.2 %, respectively. These results suggest the gradual increase of BLV infection in both areas. In Hida area, 29.1 % of cattle were positive for BLV antibodies.

2) The comparison of serological results and hematological status showed that the percentage of serologically positive animal was higher in animals with lymphocytosis than in suspect or normal animals. However, 18.6 % of hematologically normal cattle were found to be serologically positive. No significant difference was observed in lymphocyte counts between BLV antibody positive and negative cattle. Therefore, there is a relationship between hematological status and the presence of antibodies, and serological reactions appear earlier than hematological disorder.

3) A syncytium assay was performed using bovine fetal thymus or spleen cells to detect BLV. Peripheral blood lymphocytes from the adult form of lymphosarcoma induced syncytium formation. Specific antibodies to BLV reduced the number of syncytium. These results indicate the specificity of this assay for the detection of BLV. Most of the cattle with BLV antibodies were positive in the syncytium assay. Thus all cattle having BLV antibodies may carry BLV.