

## SUMMARY

### **Therapeutic efficacy of buparvaquone (Buparvon) in cattle with Theileriosis**

In this study, it was aimed to examine the efficacy of buparvaquone (Buparvon, ALKE, Istanbul) in the treatment of theileriosis in cattle –the causative agent *T. annulata*– which causes direct and indirect gross economical loose in Turkiye.

Ten cattle naturally infected with *T. annulata* either referred to the large animal clinics, or determined in the field were used in this study.

Theileriosis was microscopically diagnosed in thin blood smears stained with Giemsa stain with determining the piroplasmic forms of the causative agent in the erythrocytes.

In clinical examination of the cattle before the treatment; inappatence, weight loss, uncounsosness, uni or bilateral enlargement of lymph nodes, dullness on the skin, hyperemic mucosal membrans, fever and increase in respiratory rates and pulsation. Some of the cattle had conjunctival edema, petechie, incoordination, nasal and ocular congession and abnormal vesicular lung sounds.

In laboratory examinations before the treatment, decrease in Htc, Hb levels, and increase in AST, urea and trigliserit concentrations, however, WBC, creatinine, albumin, calsium and cholesterol concentrations were all within the normal ranges.

Parasitemia level before treatment determined from the thin blood smears was 8% to 39%.

Buparvaquone (Buparvon, ALKE, Istanbul) was administered intramuscularly to the cattle with theileriosis at a single dose of 2,5 mg/kg. Clinical and laboratory changes had been determined 1, 3 and 7 days after buparvaquone administration.

On the first day after buparvaquone administration, most of the cattle had began to eat and drink water. On the 7th day of the study, lymph nodes had begun to decrease in size, fur coat has returned to normal, nasal and ocular congession had stopped, akciğerlerdeki sertleşmiş veziküler seslerin normale döndüğü and edema, congession and petechie could no more be noticed in mucosal surfaces. 1, 3 and 7 days after buparvaquone administration average body temperature and respiratory rates had significantly ( $p<0.05$ ) decreased and mean pulsation rates has also decreased without showing an significance.

1, 3 and 7 days after buparvaquone administration decrease in Hb, serum urea, trigliserit and AST levels and increase in WBC numbers had been determined, however Htc, serum creatinine, albumin, calcium and cholesterol concentration did not change.

In all infected cattle the agent had been deenerated to pycnotic forms on day 1 after buparvaquone administration, and their numbers had begun to decrease on day 3 and about 1 % on slides had been seen on day 7.

As a result, it was concluded that a single deep intramuscular dose of 2,5 mg/kg buparvaquone (Buparvon, ALKE, Istanbul) was found to be effective in the treatment of cattle theileriosis which are naturally infected with *T. annulata*, however further studies are needed with control groups of the same breed and age of definite subtype, in suitable numbers of naturally infected and experimentally infected cattle.

**Key Words:** *Theileria annulata*, buparvaquone, cattle.