Thesis abstract
ABSTRACT

To evaluate the trypanocidal activity of different herbal extract thirty dogs of either sex and ranging between six months to two years age group were selected and divided into five study groups each comprised of six dogs. The dogs from all the groups received *trypanosoma evansi* infection experimentally and they were given different treatments. First group was untreated control while second group (T1) was treated with
Parthenium hysterophorus flower extract @ 256 mg/kg body weight S/c. Third group (T2) with Calotropis procera root extract @ 56 mg/kg body weight S/C. Fourth group (T3) with Azadirchta indica leaves extract @ 300 mg/kg body weight S/C and fifth group (T4) with Diminazene aceturate @ 10 mg/kg body weight I/m. Each treatment in each group was injected once as a single dose. Clinical haematobiochemical and CSF changes were studied in all groups before infection after infection and on 3rd, 7th and 15th day post treatment.

Symptoms like rise in body temperature, respiration, heart rate, anorexia, submandibular oedematous swellings, enlarged lymphodes, corneal opacity, leg weakness, shivering, convulsions, recumbancy and death with 66.6% moderately.

Haematological changes as compared to before infection levels revealed anaemia with marked decrease in TEC, Hb, PCV, MCV, MCHC, lymphocytes and eosinophils with rise in ESR, while increased TLC and neutrophils indicated inflammatory changes.

Biochemical and CSF changes revealed hypoglycemia and hypoproteinaemia indicated by reduction in blood glucose and CSF glucose with reduction in serum total proteins, albumin and globulins and CSF proteins. Rise in AST, ALT and CSF cells indicated marked inflammatory changes.

Necropsy findings revealed enlarged lymphnode, liver and spleen with congestion in lungs, kidney, heart, intestine and brain.

In treated groups though parasitaemia was not completely elimated by given treatments T1, T3 and T4 have shown improvement in haematobiochemical and CSF changes after 7 to 15th days of treatment as compared to control, which indicated reduction in anaemia and inflammatory changes by given treatment. However, T2 treatment was not found effective as there was no improvement in haematobiochemical changes in this group through out the experimental period.