CONCLUSIONS
6. CONCLUSION

*B. malayi* infection of *M. natalensis* has brought about the following changes in different organs compared to healthy (control) animals:

- Decrease in the level of antioxidant enzymes and antioxidants in liver, testes, brain and heart, compared to an increase in lungs. Increase in the LPO of liver, testes, brain and heart, compared to a decrease in the lungs. All these shifts get restored to normal level (as in control animals) following the administration of DEC in all the organs except in testes.

- Haematological parameters and the level of membrane bound enzymes of the brain and RBC’s get affected. Testicular damage occurs as evidenced by altered marker enzymes. Histopathological changes take place in liver, brain, testes, heart, lungs, kidney and spleen which do not get rectified even after DEC treatment, and in the case of testes the histopathological changes became more pronounced.

- Thus, it can be said that the host, *M. natalensis* responded to *B. malayi* infection, by damaging its own antioxidant defence system and consequently causing tissue injury in all the organs studied. However, in lungs the antioxidant defence system seems to be less affected leading to reduced peroxidation of lipids. DEC treatment to infected animals restores the activity of antioxidant enzymes, but does not rectify the histopathological changes in all the organs and in fact, in testes, the tissue damage becomes more severe i.e., degeneration of seminiferous tubules leading to absence of spermatogenesis.

- Histopathological changes in various organs include mechanical injury caused by the parasite circulation and ischemia and hypoxia due to parasitic embolism. The degree of the pathological changes varied from organ to organ.