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Hemato-Biochemical Studies on Naturally Infected Camels with Trypanosomiasis

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Abstract : Blood born diseases such as trypanosomiasis have negative impacts on health, production and working efficiency of camels in different camel-rearing areas of the world including Pakistan. In present study blood samples were collected from camels kept at the desert condition of cholistan to estimate the prevalence of trypanosomiasis and hemato-biochemical changes in naturally infected cases. Results showed an overall 9.31% prevalence of trypanosomiasis in camels. Various clinical signs such as pyrexia, occasional shivering, inappetence, urticaria, swelling, lethargy, going down in condition and edema of pads were observed in few cases. The statistical analysis did not show significant association of age and sex with trypanosomiasis. However, results revealed significantly decreased values of total erythrocyte counts, packed cell volume, hemoglobin concentration, mean corpuscular hemoglobin concentration, serum total proteins and albumin while increased values of mean corpuscular volume was recorded in infected animals as compared to healthy. A significant ($P<0.01$) increased values of total leukocyte count, monocyte, lymphocyte, neutrophils, and eosinophils was recorded in infected animals. Moreover, microscopic examination of blood films obtained from naturally infected cases showed the presence of parasite and various morphological changes in cells such as stomatocyte, hyperchromasia, and polychromasia. Significantly increased values of different hepatic enzymes including alanine aminotransferase (ALT), aspartate aminotransferase (AST) and alkaline phosphatase (ALP) were also recorded.

Keywords : camel, hematological indices, serum enzymes, Trypanosomiasis
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