

## Studies on the haemolytic complement of the dromedary camel (*Camelus dromedarius*). II. Alternate complement pathway haemolytic activity in serum

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### **Abstract:**

Fresh camel serum caused lysis of unsensitised red blood cells (RBC) of chicken, rabbit and guinea pig. Homologous RBC were resistant to lysis. There was only minimal lysis of goat, sheep, rat and cattle RBC. Lysis of heterologous RBC was attributed to the presence of alternate complement activity (ACP) in the serum as adsorption with respective RBC and addition of 10 mM ethylene glycol-bis(tetraacetate) (EGTA) in the SVBS diluent did not abrogate the haemolytic activity. Guinea pig RBC were the most sensitive to lysis, giving a mean ACP activity of  $41.5 \pm 1.8$  CH50 units ml<sup>-1</sup>. Clotting, followed by storing of blood between 0 and 37 degrees C for 1 h did not significantly affect ACP activity. However, considerable activity was lost when blood was clotted and stored at 44 degrees C for 1 h, or when serum was kept at 4 degrees C for 24 h. Treatment with zymosan, or incubation at 56 degrees C for 30 min inhibited ACP activity. Maximum ACP activity occurred in the presence of 8 mM Mg<sup>2+</sup> in the SVBS-EGTA diluent, at pH 7.3 and incubation time of 2 h at 37 degrees C. Levels of ACP activity were determined in 79 healthy camels of different age groups, ranging from 3 months to 15 years. Calves between 3 months and 1 year of age had higher ACP activity than camels in the age group of 5 years and above. Highest mean ACP activity of  $89 \pm 7.9$  CH50 units ml<sup>-1</sup> were recorded in 1-5 year old camels ( $P < 0.0001$ )