

# COMPARATIVE ANALYSIS OF SELECTED IMMUNE PARAMETERS IN BLOOD OF THE MAJAHEEM AND MAGATEER DROMEDARY CAMEL BREEDS

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## ABSTRACT

The present study investigated the composition of blood leukocytes in the Magateer and Majaheem camel breeds using immune cell labeling and flow cytometry. In addition, the phagocytosis activity of blood neutrophils and monocytes were compared between the two breeds. Although the total number of leukocytes did not differ significantly between the two camel breeds, a significantly higher fraction and absolute number of neutrophils was observed in blood of the Majaheem breed compared to the Magateer breed. In contrast to this, the fraction of eosinophils was significantly lower in blood of the Majaheem than the Magateer breed. The comparison of lymphocyte composition between the two breeds revealed significantly more B cells (relative and absolute count) in blood of the Magateer breed camel than the Majaheem camels. The two breeds showed comparable phagocytosis activity for their neutrophils and monocytes. Collectively, the present study compared selected cellular immune parameters between the two main breeds of the dromedary camel and identified similarities and differences.

**Key words:** Breed, dromedary camel, immune parameters, flow cytometry, leukocytes, Magateer, Majaheem