

# Session (8) : Health & Diseases

# Effect of Transportation Stress on Some Behavioral Patterns and Hematological Parameters of Dromedary Camel (*Camelus dromedarius*)

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## ABSTRACT

The study was designated to evaluate behavioral and physiological responses of Dromedary Camel (*Camelus dromedarius*) to transportation as early indicators of stress. Camels were imported from Dongla quarantine in Sudan to Arqeen (at the borders between Egypt and Sudan) walking about 450 km. Then after that, the camels moved from Arqeen to Abo simple quarantine. Camels were divided into 3 groups; control group 1 ( camels were not transported), group 2 ( camels transported by trucks that travel about 150 km, taking about 2-3 h) and group 3 (camels transported from Arqeen to Abo simple quarantine by walking about 90 km for 24 h). In Abo simple quarantine, 30 healthy males (5-7 years and 300-400 kg bwt) were selected for each group, three replicates for each. Some behaviour of maintenance of studied camels were recorded ; Ingestive as feeding and rumination, comfort as recumbancy , standing ,body care; rubbing, scratching and nipping) were observed for 120 min (60 min in the morning and 60 min afternoon) with 5 min interval. Blood samples were collected immediately after camel's arrival (0 h) and at 18 h after arrival for hematological examination (PCV, Total RBCS, and total WBCS). As a result, frequency of feeding and rumination, scratching and standing were significantly decreased in transported camels (truck and walk) compared to control. On contrary, recumbency frequency was decreased in comparison to control. Furthermore, PCV was significantly increased and total RBSs count was decreased in group 1 at 0 and 18 h compared to control. In addition, leukopenia was detected in group 2 at both 0 and 18 h. Therefore. This study suggests that, transportation induced marked stress on camels that may lead to economic losses.

**Keywords:** camel behaviour, quarantine, stress, transportation, welfare