

# Session (1) : Keynotes

# **A survey of Bluetongue Virus Antibodies and Associate Risk Factors among Camels in Khartoum State, Sudan**

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## **ABSTRACT**

The current study was a serological survey conducted in Khartoum state, Sudan to determine the prevalence of BTV antibodies and identify the potential risk factors associated with the disease among camels. Total of 184 blood samples were collected randomly from six localities in the Khartoum state. The serum samples were screened for the presence of BTV specific immunoglobulin (IGG) antibodies using a competitive enzyme linked-immunosorbent assay (cELISA) and all camel's owners included in this study were subjected to a questionnaire to determine the potential risk factors associated with the disease. The results of test showed the serological evidence in 123 camels out of total 184 camels tested, with overall prevalence (66.8%). The present study found the source of animals and present of other animals in herds of camels were important risk factor associated with the disease. The prevalence of infection was higher in camels population mixed with other animals (68.6%) than camels population reared alone (57.1%). Also the prevalence of infections was higher in camels purchased from market (73.6%) than camels raised in farms (66.7%). On analysis the risk factors showed a significant association between the source of animals and BTV infection (p-value = 0.040) and a significant association of animals and BTV infection (p-value = 0.01). Finally the present study confirmed that BTV does exist in camels with high prevalence in Khartoum state. To diminish that the control measured to infection should improved and more studies about BTV in camels are need to identify the potential risk factors associated with the disease and role of camels to the spread of infection.

**Keywords:** *epidemiology, survey, orbiviruses, BTV, camels, cELISA, Sudan*