

# PREVALENCE OF SARCOCYSTOSIS IN DROMEDARY CAMELS FROM INDIA

**S.D. Narnaware, S.S. Dahiya, F.C. Tuteja and N.V. Patil**

National Research Centre on Camel, Post Bag No. 7, Jorbeer, Bikaner 334001, Rajasthan, India

## ABSTRACT

The camels of the present study were from an organised camel herd located at the Bikaner district (Rajasthan State, India). These camels were raised under semi-intensive system of management in outdoor facilities and fed with pellet feed, hay, and water ad libitum. These camels were regularly sent for grazing in nearby field area inhabited by stray dogs. During the study period of 5 years (2010-2015), total 92 camels were presented for routine post-mortem which includes 39 males and 53 females. These camels were categorised into 3 age groups i.e. 2 years and below (n= 31), 3-9 years (n= 35) and 10 years and above (n= 26). After observation and recording of gross lesions, the heart tissues were collected in 10% formal saline for histopathology. The formalin fixed tissue samples were embedded in paraffin, cut into 4-5 micron sections and stained with haematoxylin and eosin (HE) stain.

No macroscopic sarcocysts were found in cardiac muscle tissues during carcass examination, but Sarcocystis bradyzoites were found by microscopical examination of histological slides in 33 (35.87%) out of 92 investigated camels. The incidence of sarcocystosis was not significant between the camels of age group 10 years and above (57.14%) and 3-9 years (50%) whereas, none of the calves (below 2 years) were found infected. Sex wise there was no significant difference between occurrence of sarcocystosis in male (30.76%) and female (39.62%) camels.

Grossly, there were no significant gross changes in the heart of affected camels except incidence of hydropericardium in 5 (15.15%) of the infected camels. Microscopically, the sarcocysts were thin walled and dark blue coloured in HE stain. There was no significant pathological reaction in cardiac muscles surrounding to sarcocyst in majority of the cases. However, mild eosinophil and mononuclear infiltration was observed in 12 (36.36%) and myocardial necrosis was observed in 9 (27.27%) infected camels. The results of the present study revealed a moderate prevalence of Sarcocystis infection among camels of the present study.

**Keywords:** Camels, prevalence, sarcocystosis