

ENDOPARASITIC INFESTATION IN CAMELS (*Camelus dromedarius*) OF NORTH GUJARAT

S.S. Ghoke, K.M. Jadhav, H.R. Parsani and R.R. Momin

Department of Veterinary Medicine, College of Veterinary Science and Animal Husbandry, SDAU,
Sardarkrushinagar 385506, Banaskantha, Gujarat, India

ABSTRACT

A study on endoparasitic infestation in camel of North Gujarat was carried out. Out of 120 faecal samples examined, 87 were found positive for *Trichostrongylus* (33%), *Trichuris* (12%), *B. coli* (53%) and mixed infestation (18%). The 48% of the positive cases showed EPG level over 600 while 20% showed heavy load of EPG in camels. Endoparasites in camels besides causing mortality in heavy infestation also have adverse impact on production and working capacity.

Key words: Camels, endoparasitic infestation, Gujarat

The camel being creature of desert, lives in a habitat generally not conducive to the development and transmission of parasites but still it harbours helminths of all classes. Owing to sparse population and extensive method of husbandry under which camels are kept, endoparasites are less problem as compared to other domestic ruminant (El Bihari and Kawasmch, 1985). In view of this, endoparasitic infestation in camels of north Gujarat was studied.

Materials and Methods

The study was conducted in north Gujarat where maximum density of camel population exists. The climatic condition is arid to semi arid type. A total of 120 fresh faecal samples were collected in an air tight container. Each faecal sample was divided into 2 portions of approximately 10 gm each and 5 ml of formalin solution (10%) was added to a portion for counting of eggs per gram (EPG) and other portion taken without formalin for direct microscopic examination. The faecal samples were also examined by sedimentation technique for the presence of ova of different helminths and protozoan cysts. The ova/egg of various helminthes were identified on the basis of morphological details (Soulsby, 1980). The worm load in EPG was determined by using Stoll's technique.

Results and Discussion

Out of 120 camels screened 87 camel were found positive for either *Trichostrongylus* spp, *Trichuris* spp, *B.coli* or mixed infestation giving 72% of affected animal from the region of north Gujarat.

Eggs per gram level between 500 to 1000 were found in 48% cases, while below 500 were observed in 32% cases. Twenty per cent of cases showed EPG levels more than 1000. EPG level of 600 or more was considered as minimum level after which animal required immediate treatment.

Trichostrongylus (33%), *Trichuris* (12%), *B. coli* (53%) and mixed infestation (18%) were the different endoparasites found in the total cases examined. *Trichostrongylus* spp along with *Haemonchus* spp caused fatal infestation in camel (El Bihari and Kawasmch, 1985 and Purohit and Lodha, 1958). Jaskoski and Williamson (1958) and Duinn (1978) reported *Trichostrongylus* spp, and *Camelostrongylus* spp in zoo camel in Chicago. Similar results were also reported by Hirani *et al* (1977), Yass (1988) and Momin (1998).

Prevalence of *B. coli* infestation reported in camels of Gujarat and Rajasthan were found to be 29% (Momin, 1998; Joshi and Pathak, 1998) as compared to present study, which has 53% infestation. *B. coli* is although normal inhabitant of gastrointestinal tract, infestation with normally new pathogenic *B. coli* has been implicated as a cause of severe diarrhoea in camels (Vanniasingham and Vos Singh, 1969).

The faecal egg count of parasites reported upto 600 grams of faeces were considered to be light, whereas counts above 600 per gram were considered as heavy infestation as reported by Blaizot (1976). In the present study, 48% showed heavy load of eggs in the faeces while 20% showed much higher load of eggs in camels of north Gujarat.

SEND REPRINT REQUEST TO S.S. GHOKA [email: survet@rediffmail.com](mailto:survet@rediffmail.com)

References

- Blaizot CC (1976). Doctorate Thesis, Vet-Alfort No. 9 Cited By Dakkale, A. and Onhelli, H. (1987). *Revue Scientifique et Technique / Office International des épizooties, International Office of Epiz* 6(1):477-641.
- Duinn AM (1978). *Veterinary Helminthology*. William Heinemann, London.
- El-Bihari S and Kawasmch ZA (1985). Occurrence and seasonal variation of some gastrointestinal helminthes of the dromedary in S.Arabia. *Proceedings of the Saudi Biological Society* 4:297.
- Hirani ND, Hasnanai JJ Patel AL, Bhatnagar, MR, Wadhvani, KN and Patel AM (1997). Helminthic infection in camels and donkeys. In 1st National Seminar on Improved Use of Pack Animals and its Related Aspects. 19th Dec., Gujarat.
- Jaskoski BJ and Williamson WM (1958). *Journal of the American Veterinary Medical Association* 132:35.
- Joshi SP and Pathak KML (1998). Prevalence and intensity of *B. coli* infection in camel under irrigated and non-irrigated area of Bikaner district. In International Seminar on Camel Applied Research and Development 10-11th August, Bikaner.
- Momin RR (1998). Parasitic diseases of camels in Gujarat state of India. In: 3rd Annual meeting for Animal Production under Arid condition. International meeting on camel Production and Future Perspectives. 2-3rd May, UAE.
- Purohit MS and Lodha KR (1958). Hemonchosis in Camels. *Indian Veterinary Journal* 35:219-221.
- Soulsby EJJ (1982). *Helminthes, Arthropods and Protozoa of Domesticated Animals*. 5th ed. London, Bailliere Tindall.
- Vanniasingham JA and Vos Singh RA (1969). *Journal of the American Veterinary Medical Association* 155:1077.
- Yass HE (1998). Epidemiological studies of gastrointestinal parasites in racing camel of Dubai, UAE. In The International meeting of Camel Production and Future Perspectives, 3d Annual Meeting for Animal Production Under Arid Conditions. 2-3rd May, UAE.