

## SHORT COMMUNICATION

**GASTROINTESTINAL HELMINTHS AND PROTOZOA IN MIGRATORY CAMELS IN MULTAN, PAKISTAN**

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**ABSTRACT.** A Survey of gastrointestinal helminthes/ parasites in camel migrated from Tehsil Jalapur Pir Wala to Multan Tehsil, was carried out during May, 2012. A total number of 50 samples (20 males and 30 females) were collected from various places at Multan. The revealed parasites were mixed helminthic infection and identified as strongylidae spp, trichostrongyle spp, coccidian/eimeria spp and isospora spp.

*Keywords:* gastrointestinal helminthes, camel, fecal sample, migratory camels.

**METHOD AND RESULTS**

In order to understand the severity of helminth parasites in camel especially in migrated camels from Tehsil Jalalpur Pirwala to Multan Tehsil, a survey was carried out in May 2012, and the observations were reported after a study on the fecal samples of the camels.

A total 50 camels (20 males and 30 females), ages ranging from 3 to 18 years were examined. Fecal samples were collected in sterilised glass bottles, transported to a laboratory, processed by sodium chloride floatation method and examined microscopically. The ova/cyst were identified on morphological characters as described by Ayaz (2010).

All 50 samples examined were found positive for mixed helminthic infection. The larvae and eggs found were of *Strongyloides* sp. (32%), *Trichostrongylus* sp. (33%), *Coccidia/Eimeria* spp. (35%) and *Isospora* (5%) respectively (Table 1).

**DISCUSSION**

Camels are important for transportation and agricultural purposes in the desert and dry regions. They harbour various parasites and disseminate them from one place to another place.

**Table 1.** Incidence of helminths/protozoa in migratory camels

Sr. No.	Parasites	Total Samples	Positive Samples	Percentage
1	<i>Strongyloides</i> sp.	50	40	33%
2	<i>Trichostrongyle</i> sp.	50	30	32%
3	<i>Coccidia</i>	50	30	30%
4	<i>Isospora</i> sp.	50	10	5%

They can easily infect other young healthy camels. These parasites were reported by other scientists (Bekele 2002, Thrusfield 2005, Max *et al.*, 2006, Guliye *et al.*, 2007, Mehari *et al.*, 2007, Parsani *et al.*, 2008 and Khan *et al.*, 2010).

Camels are generally infected with numerous parasites. Parasitic infections cause considerable losses to this ship of the desert (camel). Mostly single humped camels of breeds Mahra and White And Brown Desert (Rajasthan) are prevalent in the area. Numerous parasites are responsible for enteric infections in camels. Heavy helminthic infection causes significant impact in these animals resulting into high morbidity and mortality.

## REFERENCES

1. Mazhar Ayaz (2012). *The procedure in veterinary protozoology*, Lambert, Germany
2. Thrusfield M.V. (2005). *Veterinary Epidemiology*, 3rd ed, Blackwell Science, Oxford, London, UK, pp 234-238
3. Bekele T. (2002). Epidemiological studies on gastrointestinal helminths of dromedary (*Camelus dromedarius*) in semi-arid lands of eastern Ethiopia. *Vet. Parasitol.* **105(2)**:139-52
4. Guliye A.Y., Noor I.M., Bebe B.O. and Kosgey I.S. (2007). Role of camels (*Camelus dromedarius*) in the traditional lifestyle of Somali pastoralists in northern Kenya. *Outlook on Agriculture.* **36(1)**: 29-34.
5. Khan M.N., Sajid M.S., Khan M.K., Iqbal Z. and Hussain A. (2010). Gastrointestinal helminthiasis: prevalence and associated determinants in domestic ruminants of district Toba Tek Singh, Punjab, Pakistan, *Parasitol. Res.* **107(4)**:787-94.
6. Max R.A., Vatta A.F., Jayaswal M.L., Kimambo A.E., Kassuku A.A. and Mtenga L.A. (2006). *Technical manual for worm management in small ruminants*, Sokoine Univerisity of Agriculture, Tanzania, pp 2-4.
7. Mehari Y., Mekuriaw Z. and Gebru G. (2007). Camel and camel product marketing in Babilie and Kebribeyahworedas of the Jijiga Zone, Somali Region, Ethiopia. *Livestock Research for Rural Development.* Volume 19, Article #49. Retrieved October 31, 2010, from <http://www.lrrd.org/lrrd19/4/meha19049.htm>
8. Parsani H.R., Veer Singh and Momin R.R. (2008). Common parasitic diseases of camel, *Veterinary World* **1(10)**: 317-318