

Preliminary Survey of Helminth Parasites in Race Camels in U.A.E.

S.E. El Khawad¹, A.A. El Khouly², and F. Abdul Gadir²

¹ Vet. Hospital, P.O.Box 1004, Al Ain, U.A.E.

² Vet. Lab., P.O.Box 1004, Al Ain, U.A.E.

ABSTRACT :

Eggs of helminth parasites of 7 species, five of them are Nematodes (1-5), one species is cestode (6), and one is protozoa (7), were encountered during the field survey on the race camels in particular part of U.A.E. (Trichostrongylus col. umbriformis) (Strongyloides papillosus) (Nematodirus spatheger) (Haemonchus longistipes) (Trichuris ovis) (Moniezia expansa) and (Eimeria spp.)

Key words : U.A.E, Race Camels, Parasites, Nematodes, Protozoa, Tapeworm.

INTRODUCTION

No available records on the incidence of helminth parasites in race camels in U.A.E. were obtained. This study will show the incidence of helminth parasites infecting the race camel.

MATERIALS AND METHODS

Faecal analysis were performed on freshly collected samples from different race camels of different ages ranging between 5-10 years old. One thousand and five hundred race camels either male or female were examined. The faecal samples of each one was collected for three successive days for a period of 12 months during 1986-87, and carried to the

parasitology laboratory. All samples were examined for presence of parasitic infestation.

Eggs counts were determined using Stol's dilution technique throughout the experiment. Fresh faecal samples which showed parasitic infestation were cultured for 7 days at 27°C. Recovered larvae picked up and mounted in lactophenol and examined microscopically and identified to genus.

RESULTS

Tables 1 and 2 summarize results obtained, generally six hundred and fifty five out of one thousand and five hundred race camels were harboring helminth parasites of different species.

Table 1. The incidence of helminth parasites in race camels

Class	Parasites species	Number examined	Number infected	Percentage %
Nematodes	-Trichostrongyl. colubriformis	1,500	735	49%
	-Strongyloides papillosus	1,500	730	48.7%
	-Nematodirus spathiger	1,500	315	21%
	-Haemonchus longistipes	1,500	300	20%
	-Trichuris ovis	1,500	49	3.3%
Protozoa	Eimeria oocysts	1,500	16	1.1%
Cestodes	Moniezia expansa	1,500	27	1.8%

The high incidence encountered in these camels was that of Trichostrongylus columbriformis 49%, followed by Strongyloides papillosus 48.7%, Nematodirus spathiger 21%, Haemonchus longistipes was encountered in about 20%, Moniezia expansa in about 1.8%, Trichuris ovis was encountered in 3.3% and Eimeria oocyst in 1.07% of the cases.

The incidence of single and multiple infections are shown in Table (2), where 98.8% of the cases examined harbor only one genus of parasites, 0.3% had two genera, and 0.9% had three genera of parasites.

Table 2. The incidence of helminth parasites in single and multiple infections in 650 race camels.

Type of infection	Class	Species	No. of infected	% of infected	Total Infected
Single infection	Nematod. + Cestodes	Diff. species	642	98.8	650
Multiple Infect. (2 spp)	Nematodes	Haemonchus longistipes & Nematodirus Spathiger	2	0.3	650
Multiple Infect. (3 spp)	Nematodes	Strongyloid. papillosus Nematodirus Spathiger & Haemonchus Longistipes	6	0.9	650

Figure 1 shows some characteristic eggs of some helminth parasites of different species commonly encountered in the faeces of race camels examined in this study.



(A)



(B)

Fig. 1. Characteristic eggs of some helminth parasites.

A. *Trichuris ovis* eggs

B. (1) Eggs of *Nematodirus spathiger*,
(2) *Strongyloides papillosus*, and
(3) *Trichostrongyloides*

The eggs per gram (e.p.g.) of faeces obtained for Haemonchus longistipes in these camels ranged between 900 to 1050 e.p.g. during the period of the study.

DISCUSSION

The rate of infestation is shown to be during the months of November, December, March and April compared with the other months of the year. This result coincides with the work carried out by El Bihari and Kawasmeh in Saudi Arabia camels in 1980. It also appears that these variations in the rate of infection during the months of the year, and that these variations may depend on the change of environmental conditions which affect worms growth. This is in agreement with the findings of Levine (1959) who stated that the change of weather may cause the range of infection between high and low.

It is evident from the experiment carried by Arzoun et al (1984), that infection with the stomach worm, Haemonchus longistipes causes emaciation, anemia, oedema of lower limbs, eosinophilia, hypoproteinaemia, hyperglobulinaemia and elevated blood urea nitrogen in camels beside these, the pathogenesis of the stomach worms either Haemonchus longistipes or Trichostrongylus spp. (separately or mixed) cause large amount of blood losses. All these factors make race camels unable to give good result during the race particularly if run for a long distance.

The pattern of distribution of the infection is high in animals harbouring one species followed by animal harbouring two species and lastly with these harbouring three species of parasites. This may be related to the degree of exposure to infection at different age of groups to some immune response developed after exposure to the first infection.

Tapeworm infection was very low (1.8%) and the incidence of infection was lower than expected for Moniezia expansa. This could be due to the fact, that at least Moniezia spp. is short lived and infected camels usually lose their parasitic load in about 4 months time (Soulsby, 1982).

ACKNOWLEDGEMENT

The writer thanks the Director of Dept. of Agriculture at Al Ain for following the publication of this work, thanks are also due to all the veterinary assistants who helped in the collection of samples during this survey.

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مسح أولي للطفيليات الداخلة في الجياز الهضمي لجمال السباق في الإمارات العربية المتحدة

ملخص :

تم في هذه الدراسة تسجيل سبعة أنواع من الطفيليات الداخلية في الجمال . خمسة أنواع وديدان إسطوانية ونوع واحد للديدان الشريطية والطفيل الأولي . وكانت أنواع الديدان الإسطوانية هي تريكوسترونجلوس كوليفورميد واسترونجلوس بابلوسيس ونيساتودايرس وهومونكس لوجستيبس وتريكيورس أوفيز وكانت الديدان الشريطية ممثلة في مونيزيا أكسانسا والطفيل الأولي كان من جنس الأيميريا .