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Trypanosoma of Imported Camels in Sebha Province

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Abstract: One hundred and fifteen blood samples from male and female imported camels were collected and examined with the objective of estimating the prevalence of camel trypanosomosis. The method employed was the parasitological examination under microscope using thin and thick smear of blood. The overall prevalence of camel trypanosomosis was found to be 4 (3.5%). A higher infection was found in females (2.6%) as compared to males (0.9) with no significant differences between infected males and females.

Key words: Camels, Protozoa Trypanosoma, Trypanosomiasis.

I. INTRODUCTION

Trypanosomiasis is the most important and serious pathogenic protozoan disease of camel caused by trypanosome species. This parasite has wide range distributions throughout tropical and subtropical regions of the world, and most important single cause of morbidity and mortality in Camels. So the disease is often rapidly fatal in Camels. There are Camel trypanosome in countries were by neighboring to the southern Libya, Techad, Niger and Sudan [3], [4]. and other African countries like Tanzania, Nigeria [1], [2]. Imported Camels for Libya from Africa via southern Libya border. The prevalence of Camels Trypanosoma was 3.3%, 2%, 5.82%, 8.2%, for [5], [7], [6], [2]. Respectively. In Spain seroprevalence was 9.0% using Ab-ELISA was higher than that observed when a parasitological method (microscopic observation of blood smears) was used (1.3%).[8]. and in Sudan prevalence was 6.34% using parasitological method. The overall prevalence of camel trypanosomosis was found to be 3.9% in Ethiopia. The prevalence of *Trypanosoma* was not significantly ($P < 0.05$) varied between males (3.6%) and females (3.9%) camels, [10].

A. Materials and Methods

A total of 115 one humped imported camels from Techad (61), Niger (40) and Sudan (14) were present in different areas at Sebha province used in this study. The study animals include camels of both sex (70 females and 45 males).

B. Collection of blood samples

5 mls of blood samples were collected from each animal with the help of sterilized syringe by the vet doctor and referred into screw capped tubes and transferred to the laboratory belonging to Zoology department, Faculty of Science, Sebha University, Libya.

C. Preparation of slides

Double thin and thick blood smears were made, dried in room temperature. Dried smears were fixed in absolute methyl alcohol for two minutes. The slides were immersed in Giemsa's stain for 20 minutes. After drying the slides were examined under light microscope (at 100x oil immersion objective) for trypanosome parasite identifications.

II. RESULTS

The imported camels from different neighbors countries showed variance between each others in infection with Trypanosome, where the data in Table (1) recorded a total of 61 camels imported from Techad 3 (4.9%) of them were infected. Out of 40 camels imported from Niger one of them (2.5%) was infected. The camel which imported from Sudan appears healthy without infection. The females appears more susceptible to infection by Trypanosome than males, where out of 37 females two of them were infected (5.9 %) and out of 24 males one of them was infected (4.2 %). In Niger out of 25 females one of them was found infected (4 %) and no infection was found in males. On the other hand imported camels from Sudan were healthy.

Table (1): No of Camels imported from different neighbors countries

Gender	imported camels								
	Techad,			Niger			Sudan		
	Total	Infected	Prevalence	Total	Infected	Prevalence	Total	Infected	Prevalence
Males	24	1	4.2 %	15	0	0	6	0	0



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Females	37	2	5.9 %	25	1	4 %	8	0	0
Total	61	3	4.9%	40	1	2.5	14	0	0

Light microscopic examination detected 4 sample out of 115 (3.5%) of camels infected with Trypanosome (positive) which represented by 41 males and 74 females. Where the males prevalence 0.9 % and the female prevalence 2.6 % as showed in Table (2).

Table (2): Prevalence of Camels Trypanosoma in Sebha province

Sex (genders)	No of samples	Positives	Prevalence	t "test"
Male	41	1	0.9%	0.375
Female	74	3	2.6%	
Total	115	4	3.5%	

III. DISCUSSION

Whereas the statistical analysis (t test) showed no significant differences between infected males and females. In spite of the present study showed the overall prevalence was 3.5% which resemble the past study by [5]. and different with other studies this differences might be due to the techniques which needs more sophisticated equipments, implementing new parameters and techniques such as PCR (Polymerase Chain Reaction), etc. Hence, further studies that focus on the association between trypanosomosis and risk factors like range of camels' movement, seasonal or length of seasonal migration, ethnic group, and sex of camel and herd management should be considered. Also needs potential health impact and Vet doctors at borders before permission for these animals to be in Southern Libya. Needs governmental resolutions, legislation and relegations systems between Libya and African countries border to southern Libya as Techad, Niger, Sudan.

IV. CONCLUSION

In conclusion, results of the present study indicated that camel trypanosomosis is prevalent in imported animals from Africa to Libya, and it is a disease of major economic importance in these Camels.

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