



Case series: Camel Gastrointestinal Parasite in Hargeisa, Somaliland

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Abstract

The camels are mainly distributed in the Africa and Asia, and raised arid, semi-arid and desert area of the both continents. Camels also called ship of desert and them high tolerance of heat and hungry, the camels provide valuable thing such as meat, milk and transportation that contribute income and economy of these continent and country also in many livelihoods. The gastrointestinal parasite that affected in camel and calves, so the parasite has high morbidity but there is low mortality, the gastrointestinal parasite contains trematode, cestode and nematodes. The methods used of this parasite to examine the parasitological examination such as floatation and sedimentation methods they produced positive for Coccidiosis, Toxocariasis and Schistosomiasis, also temperature of the Camels assessed was found 37°C, 37°C, in less than one minute. Also, blood parameter assesses such as blood count and the result were one the camels are anemic while the other nearly normally there is no indication about anemic. The animal recommends for deworming for anthelmintic.

Introduction

The camels are mainly raised in Africa and Asia, that estimate with worldwide population of camels about 35 million. In addition, camels gave valuable source such as meat, milk and transportation in many different parties and regions of the world, mainly in Africa and Asia, [1]. The camels divided in two species such as camel dromedarius and camels bactrianus, in other word Old camel and new camels are distributed in 47 countries approximately 95% of the whole population of Old-World Camels, one-humped camel, also known as dromedary (*Camelus dromedarius*). The camels called ship of desert that found in semi-arid and arid zones, they provide food security livestock species and have crucial role in their economy in mostly and Africa and Asia. The total population of the Old-World Camels increase approximately 82% from 19 million in 2017, [1]. The gastrointestinal parasites is the causes of morbidity and mortality in domestic camels that reduce the production of meat, milk and transportation, [2].

The *Coccidia Eimeria camelia* is a causative agent coccidiosis causing enteritis and the mortality rate up 10% in both adult and young camels also reported in rare cases, also damage intestinal of the animals that causes diarrhea and other symptoms [3-8]. There is previous study that was examines 204 fecal samples examined only 14 were found to be positive for *Eimeria*. [9] Found oocysts of *E. cameli*, *E. dromedarii*, *E. pellerdyi* and *E. bactrianus* 86% were positive dromedary camels in India [10]. Diagnoses fecal samples to be positive for *E. dromedarii* and *E. noelleri* oocysts in Iraq. [11], similarly in Indian camels calves also in Sudanese camels positive for coccidia oocysts [12]. The camels are infected various camel endo parasite also, is host reservoir for *Trypanosoma evansi*, the gastropod-borne trematodes (e.g. *Fasciola* spp., *Dicrocoelium dendriticum* and *Schistosoma* spp.) or metacystode larvae of zoonotic tapeworms, such as *Echinococcus granulosus* (s.l). however, there are several blood suckers or haematophagous ectoparasites that affect camels this include ticks, mites and fly, flies that transmitted many zoonotic diseases such as viral and bacterial pathogens (e.g. Crimean-Congo hemorrhagic fever virus, *Coxiella burnetii*, *Anaplasma* spp, *Rickettsia* spp, *Bartonella* spp. and *Yersinia pestis*) [13]. The various parasites affect cattle as well camels that impact the productivity of the animal in Ethiopia, among this parasites include *Toxocara/Neoscaris vitulorum* and is serious parasite for both young cattle and calves in tropical countries where there climate is favorable and suitable to the parasite to be effect and causing disease in cattle and camel the prevalence of this parasite reported in Ethiopia is over 30%

in cattle and camels.

Case history

The animals was 26 camels that was affected the disease, firstly the owner tell us that camels were sick any gender of the camel, male and female, also there is a previous treatment with veterinarian this doctor use mostly antibiotic such as Penciling or Pen-strep, Oxytetracline and Multivitamin, but there is no prognosis about this treatment, on the other hand, there were mortality in the herds, 5 camels are died due to unknow disease, so the owner of the animals tell us while I am taking interview or history of both animal and disease. So, a first case had a diarrhea with adult parasite that live after failing on the ground they enter the trees, so this history gave prognosis of the disease is gastrointestinal parasites, another symptom was emaciation, while animal feeding, swollen joints abdominal edema with emphysema, there is white mucus membrane of the animals. The diarrhea was watery and have petrification with odors.

Case report

I am present a two case of calve that age 9-11 month who presented 18 April 2020 to the clinic of the Ministry of livestock and fishier development, in follow up. During the initial assessment it was clinically deemed that the calves had gastro intestinal parasite with diarrhea of adult parasite, emaciation and even mortality other camels in the herds.

The extensive past medical history included: severe emaciation, watery diarrhea first case show diarrhea with adult parasite, white, pale mucus membrane, abdominal pain, abdominal edema, swollen joint,

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appetent means the animals feeding normally, weight loss, one young calve cannot stand normally, they can stand with support.

The past extensive of note was medication long-term antibiotic such as Pen-strep, Oxytetracine and Tylozine with veterinarian, with recurrent gastrointestinal infection. Follow any improvement medication, finally after make tentative diagnosis I treat anthelmintic for parasite such albendazole 10% with kg body of the calve, animal have good signs of prognosis and health improvement.

Methodology

This prospective study of camel with gastrointestinal parasite present and investigated and collected laboratorial samples such blood, feces, ear swab of parasite examination, and assessment body temperature of the calves to be evaluated and diagnosis of the causative agent of the disease, fresh faces collected processed the two procedure of parasitological examination such as Floatation method and Sedimentation method, then blood collected with vacutainer tube with EDTA, to prevent blood clotting and preserve with ice box, then processed into CBC blood counting.

Result

Successful of the two case of calves the laboratory procedures such floatation, sedimentation and blood count, measurement of body temperature, also ear swab for examination of adult parasite, the body temperature of first case of calve its temperature was 37°C, less than one minute, the second was 36°C, less than one minute this indicate there factors that influence the body temperature of the calves, scientifically the parasites increase the body temperature beyond the normal temperature of the body. The ears swaps for examination ear in adult parasitic there is no adult parasite found in the ear of the calves, so it means this are negative. The floatation and sedimentation method show that the two calves are positive for Toxocariasis, schistosomiasis, Eimeria camels of Coccidiosis species that affected. Finally, the CBC count indicated that HGB one of the calve is low and an anemic state need for fluid therapy, the remain calves have normal HGB there is an anemic state.

Discussion

In this specific case that follow up in multiple relevant predisposing factors, the case diagnosed in the gastro intestinal parasite the affect the wall and gut animal that affect the metabolism and digestive process of the camels causes mal-absorption and diarrhea sometimes with parasite and egg shed the feces, other signs, emaciation abdominal edema and joint swollen and weight loss the previous treatment cannot prognosis, but the later treatment of anthelmintic albendazole 10% they show good prognosis and drug effective to reduce the burden of parasites. Coccidia particularly Eimeria cameli of that causative coccidiosis of the camels that reduce production and productivity animals, also causes mortality and morbidity of camel relevant in gastrointestinal parasites. Though these two calves are case report to identify causative and made parasitological examination they produce they positive Eimeria cameli, this similar result in the study below thought there is slightly different the sample size but similar the case are positive in Eimeria cameli.

Twenty camel calves, 28 young camels, 40 racing camels from three herds and 18 breeding camels totaling 106 camels were investigated for the cause of mortality. Fifty-eight (55%) were diagnosed as having coccidias in their gut, of which 49 (46.7%) revealed a coccidiosis, and 9 (8.5%) a coccoidal infection. Forty-eight (45.3%) including all 20 calves were negative for coccidia. massive members of coccidian parasites of different stages. Histopathological investigations showed

that at least 5 different locations of the small intestine, especially the caudal ileum and jejunum are required to diagnose coccidiosis. Similar to the first scientific description of camel coccidiosis caused by Eimeria (Globidium) cameli. It was considered that these stages belong to Eimeria cameli, because immature oocysts of *E. cameli* were found within the intestinal epithelial mucosa [6]. The second parasite that I found Schistosomiasis the egg found in the procedure of floatation and sedimentation methods, so the two calves positive for this parasite. This study similar that fecal egg procedure positive for Schistosomiasis though this study related the Schistosomiasis mansoni in the effect of colostrum immune. So, both study similar to the positive Schistosomiasis This reduced female Schistosome fecundity by 33% with more pronounced effects (66%) on fecal egg output and a decrease of the mean granuloma surface in the liver after experimental infection with Schistosoma Manzon.

The final result of the investigation was Toxocariasis that the two calves positives for Toxocara vitulorum, this similar that the positive for this study and this case report for Toxocariasis is similar though there is slightly difference about the prevalence rate and the sample size also the species they affected because the study select cattle while this case report is camels thought the agent affected both species. Above result the overall prevalence of the infection observed by laboratory work by different age group and sex in this present study was similar.

Conclusion

The two calves affected gastrointestinal parasites such as Toxocariasis, Coccidiosis and Schistosomiasis, similar elevation body temperature indicate presence of parasite, also blood parameter tells that calves were anemic state and required fluid therapy, and deworming.

References

1. Yang Liang H (2015) Prevalence and Risk Factors of Intestinal Parasites in Cats from China. Bio M Res Intern
2. Hamanchandran PK, Ramachandran S, Joshi TP (1968) An outbreak of hemorrhagic gastroenteritis in camels. Ann De Par 18: 5-14.
3. Levine ND (1985) Veterinary Protozoology. The Io Stat Univ Pre P: 163-164.
4. Hussein HS, Kasim AA, Shawa YR (1987) The prevalence and pathology of Eimeria infections in camels in Saudi Arabia. J Comp Path 107: 293-297.
5. Dubey UP, Pande BP (1964) On Eimeria oocysts recovered from Indian camel (Camelus dromedarius). Ind. J Vet Sci 34: 28-34.
6. Yagoub IA (1989) Coccidiosis in Sudanese camels Camelus dromedarius: 1. First record and description of Eimeria spp. harbored by camels in the eastern region of Sudan. J Proto 36: 422-423.
7. Wernery U, Kinne J, Schuster RK (2014) Camelid infectious disorders. Paris: World Organization for Animal Health (OIE).
8. CSA (2004) Ethiopian Agricultural Sample Enumeration, Central Statistic Authority; Federal Democratic republic of Ethiopia.
9. Coppock DL (1994) The Borana plateau of southern Ethiopia: synthesis of pastoral research, development and change. Ethiopia: ILCA System Study, Addis Ababa.
10. Kinne J, Wernery U (1997) Severe outbreak of camel coccidiosis in the United Arab Emirates. J Cam Pract Res 4: 261-265.
11. Henry PA, Masson G (1932) La coccidiosis du dromedarie. Res de Med Vet Exotic 57: 185-193.
12. Boulanger D, Reid GD, Sturrock RF, Wolowczuk I, Balloul JM, et al. (1991) Immunization of mice and baboons with the recombinant Sm28 ST affects both worm viability and fecundity after experimental infection with Schistosoma mansoni. Paras Immun 5: 473-490.
13. Magnaval JF, Glickman LT, Dorchies P, Morassin B (2001) Highlights of human Toxocariasis. Kor J Paras 39: 1-11.