

TANZANIA VETERINARY ASSOCIATION



PROCEEDING OF THE 35 SCIENTIFIC CONFERENCE OF THE TANZANIA VETERINARY
ASSOCIATION HELD AT AICC ARUSHA, TANZANIA ON THE 5TH TO 7TH DECEMBER,
2017

Volume 35

2017

ISSN 0856 - 1451

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Instruction to authors are provided on the inside of the back cover of every issue of the Tanzania Veterinary Journal

Publishers: Tanzanina Veterinary Association.

Assessment of health status, handling and management of working animals in Tanzania: A case study of Donkeys in Kilosa district

W.H. Kimaro¹ and M.J. Kipanyula¹

¹Department of Veterinary Anatomy and Pathology, College of Veterinary Medicine and Biomedical Sciences, Sokoine University of Agriculture, P.O. Box 3016, Morogoro.

Email: wkimaro@suanet.ac.tz

SUMMARY

The use of donkeys as drought animal has been a tradition in various parts of Tanzania. Donkeys transport goods to markets, children to schools, sick people, women in labor and water and supplies to remote communities. Despite the importance of donkeys in the community, little is known on the common diseases affecting donkeys in Tanzania. In addition, there is no structured management systems, handling, reproduction and/or disease control programmes. According to a report by ministry of Livestock development and Fisheries, the number of donkeys is decreasing. Several measures have been undertaken to save these animals including stopping of the slaughter operations which were carried out in Dodoma municipality. However, to fulfill the demand, capacity building on proper management system, handling, disease surveillance and control systems is important. This study therefore assessed the health status of donkeys, handling and management system practiced in Kilosa. Field visits, interviews, structured questionnaire and focus group discussion were used to gather information. Clinical examination was undertaken and samples collected for disease diagnosis. Sick animals were treated. The observation showed that donkeys suffer several ailments including poor management systems (housing, feeding, and manure disposal), infectious diseases, overworking, injuries and inbreeding. Community training, empowerment and veterinary service provision is recommended to improve the health and survival of donkeys in Kilosa.

Keywords: donkey, health, handling, Kilosa

INTRODUCTION

The human history shows that equine species (horses and donkeys) has been used as working animals for many years. In Tanzania, donkeys are the major working animals reared for various purposes. They play an important role for the survival of poor people in rural areas. They are traditionally used as means of transport, carrying water, firewood, harvests, commercial items and sick family members to hospital. Observations show that donkeys are the only means of transport in remote areas where road infrastructure is poor. According to a report by Ministry of Livestock development and Fisheries (2016), the number of donkey in Tanzania is decreasing. The decrease in donkey population is caused by deaths, poor fertility as well as slaughtering for skin and hides. Several measures have been undertaken to save the decrease in donkey population. One of the intervention was stopping of the slaughter operations which were carried out in Dodoma municipality. However, based on the importance of donkeys for rural livelihood, protecting these animals is important. The present project based on outreach programme undertaken at Kilosa District under support of SPANA. The goal of the project was to improve health of donkeys through community training and demonstration of good management practices. The

project assessed the knowledge, attitude, behaviour and training needs of farmers; handling and management of donkeys in the area; social economic value of donkeys; and carried out diagnosis and treatment of diseases encountered.

MATERIALS AND METHODS

The present study based on the outreach project which was conducted at Kilosa District. A total of 37 households were visited in 9 wards. The households were selected randomly. Structured questionnaires were used to assess farmers' knowledge on health, handling and management aspects. In addition, field visits and on-site observation method were used to assess the housing status and manure disposal. Through group discussion, the behavior and perception of community towards animal welfare was examined. Clinical examinations were done on site and sick animals were treated. Faecal samples were collected from rectum and evaluated for endoparasites by floatation method following standard procedure.

RESULTS AND DISCUSSION

Knowledge

It was observed that peoples' knowledge on recognizing sick animal was above average. Sixty percent (60%) of visited farmers in Kilosa could recognize a sick animal by clinical signs such as dullness, reluctant to carry the load, rough hair coat and swelling under the brisket. However, there was weakness in relating the observed clinical signs and the disease versus malnutrition/exhaustion. All visited farmers showed quest of knowledge about donkey diseases, management of donkey diseases and access to veterinary services.

Handling

The donkey owners showed high attachment to their animals. Donkeys were used as source of income for the household i.e. used to transport water for domestic and commercial purposes, carry goods to the market, carry harvested crops from farms to the house for the owners family and other families on payment basis, as well as used as means of transport to take sick family members especially during rainy season. Despite all the benefits, it was observed that there was no saddle used to protect the animals. Ropes were used to hang the loads on animals back (Fig 1a). This act caused bruises and large wound on the back of the animal and under the tail (Figure 1b&c).



Figure. 1a. Photograph of donkey carrying luggage. Note type of saddle and ropes holding the luggage



Figure 1b&c. Photographs of donkeys after removal of the luggage. Note presence of wounds on the back caused by local saddle.

Management systems and Housing

In wards visited, donkeys were reared under free range grazing system. A few farmers were using maize bran as supplement in some occasions. Water was observed to be a problem in some villages. In these villages, animals rely on salty well and rain water. More than 90% of visited farmers had no proper house for donkeys. Three types of houses were encountered. Type one was an open roof boma made up of thorny shrubs (Figure 2a).



Figure 2a. Type 1: Ope roof Boma

Type two was open or closed roof boma made up of timber and pieces of wood with gravel/cemented floor (Figure 2b). Type three was timber house covered by pieces of iron sheet (Figure 2c). In this district type two was most common whereas type three was rarely seen. In addition, a few farmers were mixing donkeys and cattle in the same house. Some families tired their animals under the tree outside the house. There was neither proper cleaning of the houses nor manure disposal.



Type 2b. Open roof wood Boma: Ilonga



Figure 2c. Type 3. Timber house covered by pieces of iron sheet

Veterinary services

There was no veterinary service provision specifically for donkeys. Farmers claimed not to have ever been visited by state veterinarian specifically for treating a donkey. Animals were left to recover themselves or die when there is health problem. There was no history of vaccination, deworming or control of ectoparasites.

Social economic value of donkeys

At Kilosa all visited farmers showed high dependency of donkeys as a means of transport and income generation. In addition, the live animals were sold locally to other farmers. The cost of live animal range between Tsh. 70,000/= and 200,000/=. For commercial purposes, the cost of transporting luggage depends on the distance. For example, at Mowe village to the market place, they charged between 10,000/= and 12,000/= (Tsh.) per trip for a load weighing 100kg. The observed challenge was low price of live animal and difficulties in accessing the national market in Dodoma.

Disease surveillance and/or diagnosis and treatment

Clinical examination was carried out in all animals attended. A total of 172 animals were examined. During clinical examination faecal samples were collected and stored pending analysis at parasitology laboratory in the College of Veterinary medicine and Biomedical Sciences (Figure 3a).



Figure 3a. Faecal sample collection from rectum

Based on clinical signs, all animals which had health problems were treated on site. Analysis of faecal samples revealed worm infestation (EPG range 200-900). The observed species were *Strongyles* and *Parascaris* spp (Figure 3b&c).

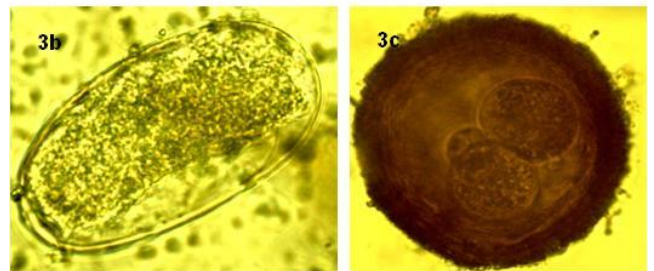


Figure 3. Photomicrographs showing (a) *Strongyle* egg and (b) *Parascaris* egg observed in infested donkeys

Other health problems found included lameness (fractures, foot rot, overgrown hooves skin lesions, wounds (Figure 4), worm infestation, ectoparasite burden, tick and fly bites. A few animals in had history of respiratory problems and nervous signs. Infested animals were dewormed by ivermectin.



Figure 4. Photograph of a donkey at kilosa district. Note overgrown hoof which caused lameness in this animal

Training

Training of farmers on good management practices and overview of donkey diseases were carried out in three wards in Kilosa (i.e. Msowero, Mkwatani and Ilonga). The training covered issues of management (housing, feeds and feeding), deworming and control of ectoparasites, access to veterinary services and market of donkeys.

Based on the findings of this study it is concluded that Donkeys are valuable animals and important for the survival of rural people living in remote areas (economic and social value of the animal). Capacity building on animal welfare (handling, management practices) and disease control strategies is needed to improve health of donkeys and livelihood of rural communities living in poverty.

ACKNOWLEDGMENTS

This project was funded by SPANA. We acknowledge cooperation and smooth coordination offered by the office of District Veterinary officer at Kilosa (Dr Yuda and his co workers.). We thank farmers for their participation and providing information for implementation of the project. Technical assistance provided by Mr Msalilwa (Parasitology technician) is greatly acknowledged.

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