Community Perceptions of Important Camel Diseases in Lapar Division of Turkana District, Kenya

1Kenya Trypanosomiasis Research Institute (KETRI), PO Box 362, Kikuyu, Kenya; 2Department of Public Health, Pharmacology and Toxicology, University of Nairobi, Nairobi, Kenya; 3African Union/International African Bureau Animal Resources (Au/Ibar), Community-Based Animal Health and Participatory Epidemiology (Cape) Unit, Nairobi, Kenya
*Correspondence: E-mail: kmochabo@hotmail.com


ABSTRACT

This paper presents the results of a study conducted in Lapar Division of Turkana District, Kenya, to estimate the incidence and mortality of camel trypanosomosis using participatory methods. Four livestock camps (‘adakars’) were conveniently selected for the study. Four informant groups comprising 6–8 key persons were used for the participatory exercises. The camel diseases identified by the pastoralists in their order of importance according to annual incidence were: trypanosomosis (11.4%); mange (10.8%); tick infestation (7.9%); haemorrhagic septicemia (7.7%); and non-specific diarrhoea (7.6%). Almost half (49.9%) of the camel population suffered from at least one disease over the previous year. The annual incidence and mortality rates of trypanosomosis were estimated at 15% and 9.9% in adult camels and 6.9% and 5.2% in young camels, respectively. There was a seasonal occurrence of trypanosomosis, with most cases reported in the dry season. The prevalence levels of the disease reportedly declined from about 100% in 1978 to an almost stable state of about 15% in 2002. This study revealed that camel trypanosomosis is still an important disease in Turkana District, exacting a heavy toll in terms of morbidity and mortality. The economic losses due to the disease were likely to have been great owing to the central role the camel plays in this arid district of Kenya.

Keywords: camel trypanosomosis, participatory approach, Turkana

Abbreviations: ASAL, arid and semi-arid land; CBPP, contagious bovine pleuropneumonia; FAO, Food and Agriculture Organisation of United Nations; PRA, participatory rural appraisal; SSI, semi-structured interview; VDDL, veterinary drugs delivery levels

INTRODUCTION

Trypanosomosis is one of the most researched diseases in Africa (Mugalla, 2000). The disease is a major constraint to the expansion and production of livestock and their products on approximately 10 million km² of land, covering 37 countries (FAO, 2000). Most camels suffer from trypanosomosis (surra) caused by Trypanosoma evansi that is transmitted mechanically, independent of tsetse flies. Camels are also affected to a
Camels are the most valuable species for 75% of Kenya’s land area, which is arid and semi-arid land (ASAL) and is degrading rapidly towards desert (Evans et al., 1995). It is estimated that Kenya has between 700,000 and 780,000 camels, kept mostly by the nomadic pastoralists in ASAL in the northern region of the country (Schwartz and Dioli, 1992). Camels are kept mainly for meat, milk, blood and transportation, and for bush control on ranches. The value of the camel varies among individual Kenyan pastoral groups. The Turkana pastoralists regard the camel as cattle (Ngeiywa, 1992; Evans et al., 1995), whereas the Gabbara of the neighbouring Marsabit District regard camel husbandry as the mainstay of their subsistence. The Turkana of Kenya were originally cattle-keepers but acquired camels through intertribal raids from their camel-keeping neighbours, the Gabbara and Rendille (Evans et al., 1995).

Among the pastoralists, camel meat is eaten only when adult male castrates are slaughtered during drought, on ceremonial occasions, or when a camel dies from disease or predation (Field and Simpkin, 1985). The Turkana use camel hides for making ropes, donkey carriers, sandals, and women’s skirts (Ngeiywa, 1992). In addition, camels are given as bride price as well as being used as a ‘bank’, that is as security against drought, diseases and other natural calamities that have devastating effects on cattle, sheep and goats.

The provision of veterinary services to pastoral communities according to a western model is difficult owing to lack of adequate infrastructure and the veterinarians’ limited experience of camels under pastoral production systems (Kohler-Rollefson et al., 2001). In addition, most veterinarians are not adept in the diagnosis and treatment of camel diseases, partly owing to the relatively limited research on camels and the fact that camel diseases are inadequately covered in veterinary schools. These constraints, coupled with the low literacy levels of pastoralists, make data gathering using conventional methods inappropriate. Thus, participatory approach (PA) methods become necessary as data-gathering tools in pastoralist settings. Pastoralists possess an extensive body of traditional knowledge on which they rely to diagnose or treat many diseases (Kohler-Rollefson et al., 2001).

The present study was undertaken to generate information to enable the relevant authorities to formulate and implement policies that foster improvement in pastoral incomes as well as improve the existing livestock pastoral production systems. In the study, the incidence and mortality of important camel diseases in Lapur Division of Turkana District were estimated.