ABSTRACT

Taeniasis is a common zoonosis whose epidemiology is estimated at 50 million cases of infestation worldwide with economic losses in Kenya amounting to $1.289 million by 2003. The infection has been grouped among the neglected tropical diseases thus its impact has been trivialized. A slaughter house survey was undertaken to determine the prevalence rate of bovine cysticercosis in carcasses slaughtered within selected abattoirs in Kajiado County and establish the viability of Cysticercus bovis. A retrospective study of bovine cysticercosis and taeniasis in Kajiado County was also undertaken and the risk factors associated with this zoonosis in this County determined. A total of 468 carcasses sampled from seven abattoirs underwent meat inspection in accordance with the Kenya meat control act Cap 356. These abattoirs receive animals from all over the County including neighboring counties. 12 macroscopically identified Cysticercus bovis isolated from the 468 carcasses were tested for viability by immersing them in 40% Ox-bile and observed under a microscope for scolex evagination. Data on bovine cysticercosis and taeniasis from January 2013-December 2015 was extracted from monthly reports of the ministry of agriculture, livestock and fisheries and ministry of health. A total of 91 pastoralists' households were interviewed in five sub-locations using a structured questionnaire. The SPSS version 20 was used to analyze data from the abattoirs and also the retrospective study. The Chi square was used to analyze the association of the zoonotic factors with the infection. The slaughter house prevalence rate of bovine cysticercosis was 2.56% (12/468) while the cyst viability was 80% (10/12). According to meat inspection reports out of 72,849 carcasses inspected between January 2013 and December 2015, 373 were positive translating to a mean of 124.3 with a standard deviation of 144.6. Zoonotic factors investigated showed a positive association with the prevalence of bovine cysticercosis with a p-value of 0.000. Out of 91 households, 68.1% households lacked toilets, 46.5% had 1:6-20 toilet-human ratio and 23% used dam, river or wells as their water sources. Another 42% did home slaughter yet 47.6% out of those who did home slaughters didn't inspect their meat. Evidence provided in this study showed that bovine cysticercosis was prevalent in Kajiado County and existing zoonotic factors exposed the animals and the pastoralists to bovine cysticercosis and taeniasis infection, respectively. Public health education and up scaling of existing medical laboratories are vital in the control of bovine cysticercosis and taeniasis while hospital based follow up research on human taeniasis is needed.