ABSTRACT

Tungiasis is a parasitic skin disease caused by sand flea Tungapenetrans. The disease is endemic in Latin America, the Caribbean and Africa.In Kenya, little data has been published regarding tungiasis generally. In Nambale health centre, tungiasisaccounted for 4% of total morbidities at the outpatient department. The prevalence of tungiasis among residents of Musokoto sub-location, the risks factors associated with tungiasis infestations and treatment methods used by Musokotoresidents to treat tungiasis are uncertain. Therefore this study sought to assess the prevalence of, risk factors and treatment methods for tungiasis among residents of Musokoto, in Kenya. Purposive sampling method was used to select Musokoto sub-location based on the previous reports of tungiasis prevalence from the health center. The 8 villages in the sub location were used in the study and 333 households were sampled using proportionate systematically random sampling.Prevalence was determined as percentage of infested individual out of total household population examined for tungiasis. Logistic regression was used to determine the risks factors associated with tungiasis. A total 1557 participant from 333 randomly selected households took part in the study. Of the 1557 participants, a total of 441(28.3%) at least had jiggers at one point in their life. Out of the 441, 287(65%) were confirmed to have jiggers on examination whereas 9(2%) did not have jigger by the time of the study. Toes on the extreme sites were more infested however the distribution of infestation was moral less the same for the all toes. Above 50% of those infested were aged 10 years and below. Logistical regression analysis revealed that place of sleeping ($P<0.001$, OR = 1.319, CI = 1.180 - 1.474) significantly influenced jiggers infestation. The type of floor of the house ($P = 0.036$, OR = 3.608, CI = 1.089 - 11.955) was also found to significantly influence jiggers infestation. Source of water was more likely to influence jigger infestation ($P = 0.001$, OR = 2.050, CI = 1.334 - 3.150) than waste disposal site ($P<0.001$, OR = 0.564, CI = 0.409 - 0.776). Having a dog or a cat and the number of such animals significantly influence jiggers infestation with the number of dogs present more likely to significantly influence jiggers infestation ($P=0.001$, OR=1.719, CI = 1.702 – 1.299) as opposed to the number of the cat ($P=0.006$, OR=1.145, CI = 1.040 – 1.261). Removal of jiggers was the predominant control method 441(100%) and this was mainly through the use of sewing needles 247(56.1%) and by use of sticks/thorns 193(43.9%). The treatment products mainly used in the treatment of wounds resulting from jiggers infestation were kerosene 402 (91.4%) though 38 (8.6%) did not adopt any treatment method. The results are essential for community, local Public Health Officers, national and international public health agencies for interventions aimed at controlling jigger’s infestation.