STUDY ON CAMEL TUBERCULOSIS AND ITS PUBLIC HEALTH IMPORTANCE IN EASTERN ETHIOPIA

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This study was carried out as a cross sectional study from June 2007 to May 2008 in three selected areas of Eastern Ethiopia (namely, Dire Dawa administrative council, Shinile and Jijiga zones of Somali Regional State) with the objectives of estimating abattoir and field prevalence rates, identifying the potential risk factors of camel tuberculosis for public health by administering questionnaires and isolating Mycobacteria from tuberculous tissue lesions in Camel slaughtered at Dire Dawa abattoir. The study camels are kept traditionally in extensive systems. Comparative intradermal tuberculin test was conducted on 480 camels in three selected areas; 29 (6%) of the camels were found positive. Out of 398 camels examined at slaughter, 33 (8.3%) were diagnosed with tuberculous lesions by detail post mortem examination. From 33 camels with suspected tuberculous lesions 4/33 (12%) showed growth on LJ media supplemented with pyruvate and 6/33(18%) on LJ media supplemented with glycerol, respectively. 57.6% of tuberculous lesions were found in lungs and associated lymph nodes; 27.2% in lymph nodes of the head. The average number of lesions per infected camel was 1.12 whereas 87.5% of camels with tuberculous lesions had only a single lesion. The epidemiological data collected through interview revealed that 36 (94.7%) and 19 (50%) of the field study camel owners were aware of the disease and its zoonotic importance, respectively. However, only seven (18.4%) of the interviewed camel owners usually boil milk before consumption but none of the respondents consume raw meat. Six (15.8%) of the interviewed camel owners share the night accommodation with their camels that may enhance risk of transmission between camels and humans. Reports from health institutions in the study area disclose the presence of the extrapulmonary form of tuberculosis whereas only four (10.5%) of the interviewees had encountered such case in their family members. Further study on transmission of mycobacteria through camel milk to humans and its molecular epidemiology in pastoral communities, in general, is recommended by the authors.

Keywords: Abattoir, camel, questionnaire, tuberculosis, tuberculin test