

Bovine cysticercosis in Cattle Slaughtered at Jimma Municipal Abattoir, South western Ethiopia: Prevalence, Cyst viability and Its Socio-economic importance

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Abstract

A cross sectional study was conducted during November 2008 to March 2009 to estimate the prevalence of Cysticercosis in animals, Taeniasis in human and estimate the worth of taeniasis treatment in Jimma town. Active abattoir survey, questionnaire survey and inventory of pharmaceutical shops were performed to accomplish the study. Of the total of 500 inspected animals, 22 animals had varying number of *C. bovis* giving an over all prevalence 4.4% (22/500). Anatomical distribution of the cyst showed that highest proportions of *C. bovis* cyst were observed in shoulder muscle, followed by tongue, heart and masseter muscle. Of the total of 114 *C. bovis* collected during the inspection, 49(42.9%) were found to be a live while others (57.0%) were degenerative cyst. Of the total 60 interviewed respondents, 56.7% (34/60) had contracted *T. saginata* infection, of which, 95% and (5%) cases reported using modern drugs and traditional drugs, respectively. The majority of the respondent had an experience of raw meat consumption as a result of traditional and cultural practice. Human Taeniasis prevalence showed significant difference ($p < 0.05$) with age groups, meat consumption, sex and use of spice. Accordingly adult individual (OR=47.4), frequent raw meat consumers (OR=18.4), spice users (OR=7.0) and male (OR=5.0) had higher odds acquiring Taeniasis than children, occasional meat consumer, non spice users and females, respectively. In this analysis there was no significance difference between religion, education status, occupational risks and marital status ($p > 0.05$). An inventory of pharmaceutical shops (pharmacies, drug stores and rural drug vendors) revealed a total of 103,596 adult taeniocidal drug doses worthing a total of 222,706 Eth. Birr (22,270.6 USD) during two years of 2007 and 2008. Vermox and Niclosamide were the most frequently sold drug for the treatment of taeniasis, while Praziquantel was least sold drug. The findings of this study including prevalence of *C. bovis*, questionnaire survey of taeniasis prevalence and the pharmaceutical shops inventory indicated the importance of Cysticercosis and Taeniasis both in public health and economical aspects. Therefore, due attention should be given to the public awareness and strict routine meat inspection in order to safe guard the public health.

Keywords: Abattoir, *C. bovis*/Taeniasis, Cattle, Prevalence, Ethiopia