

Bacteriology and Infectious Diseases

May 25-26, 2017 Chicago, USA

Molecular detection of cysticercosis of beef carcasses in Sulaimani slaughterhouse

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Bovine cysticercosis is caused by the larval stage of human tapeworm *Taenia saginata*. Cysticercosis, which occurs mainly in cattle, is a zoonosis that has significant socioeconomic and public health importance. During routine postmortem examination from (November 2014-February 2016), we diagnosed 44 cases in (3349) cattle. Basically the diagnosis of the cysts was depended on their morphological appearance; however any alteration with unidentifiable cyst and/or misdiagnosing with other fluid-filled or cheesy content cysts in heart or masseter muscles lead to real zoonotic transmission to meat consumers. Consequently, we established a molecular approach for confirming *Taenia saginata* DNA in the cysts. Eight cysts were subjected to DNA extraction and PCR amplification using two different sets of primers each in duplicate. The results for all samples were showed *Cysticercus bovis* infestation of the carcasses. More details have been obtained from sequencing of 3 positive samples and bioinformatics analysis confirmed correlation of Iran, Pakistan and Afghanistan species that the cattle were imported to Kurdistan. This is first report that confirms Bovine cysticercosis by molecular method in our region.

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