

ISOLATION AND IDENTIFICATION OF MYCOBACTERIUM FROM CAPTURED CATS BELONGING TO TUBERCULOSIS INFECTED FARMS

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Background and Aim:

Bovine tuberculosis is one of the most important zoonotic diseases in Bovidae. Humans and animals that transit to the farm can transfer Mycobacterium to the cattle. Hence, the aim of this study is to evaluate the possible role of cats in transferring the Mycobacterium infection in dairy farms.

Methods:

From a dairy cattle farm with more than 20 percent infection of Mycobacterium, seven cats were captured and their gastric juice cultured in the LJ and LG medium. The Acid-Fast staining of the isolates prepared to identify Mycobacterium and PCRs were carried out afterwards.

Results:

Five Out of seven cultures were positive in direct smear by Acid Fast staining and in PCR-16SrRNA, which indicates that the above-mentioned isolates belong to the Mycobacterium genus. Also, positive PCR-IS6110 confirmed that the isolate species are identified as Mycobacterium tuberculosis Complex. Currently, we are conducting Sequencing for the exact identification of these isolates.

Conclusion:

Animals such as mice and cats that live in the farm can harbor Mycobacterium. In this study, it has been proven that cats certainly transfer Mycobacterium to the cattle farms.

Keywords:

Mycobacterium tuberculosis Complex, Mycobacterium, PCR IS6110, 16SrRNA

Biography:

My name is Khashaiar Mansouri. I am 24 years old and currently studying Doctor of veterinary medicine at the Islamic azad university Garmsar branch. My research focus is on zoonotic diseases particularly Mycobacterium in Cat and Mice, as well as Burkholderia mallei in Guinea pig. Recently, I had a poster presentation in the 19th international and Iranian congress of microbiology.

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