



Isolation of *Mycobacterium bovis* and Non-tuberculosis Mycobacteria (NTM) from cats and mice in tuberculin-positive dairy cattle

Khashaiar Mansouri¹, Nader Mosavari^{2*}

¹- School of Veterinary, Islamic Azad University, Garmsar Branch, Garmsar, Iran

²- Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Karaj, Iran

Abstract:

Mycobacterium bovis is a major cause of zoonotic diseases. The present study was aimed to evaluate the potential role of cats and mice in the transmission of *Mycobacterium* in cow dairy herds. A total of 7 cats and 5 mice were screened from an animal husbandry. Gastric acids of captured cats were cultured on LJ (Löwenstein-Jensen). The liver, spleen, and lung of mice were cultured on LJ medium followed by sterilization. The acid-fast staining and also PCR were used for detection of *Mycobacterium* spp. Five from 7 cats were positive by acid-fast staining and PCR. 16S rRNA were confirmed the environmental *Mycobacterium* additional one from 7 cats was positive by acid-fast staining, PCR and 16S rRNA sequencing methods was confirmed the *Mycobacterium tuberculosis* Complex (MTB). Three out of 5 mice were positive by acid-fast staining. PCR and 16S rRNA sequencing methods were confirmed the *Mycobacterium tuberculosis* Complex (MTB). Currently, we are conducting PCR-RFLP and RP Typing to identify this bacterium more precisely. We indicated that the mice and cats are potential source for *Mycobacterium* spp. Thus, they can infect dairy cattle farms.

Biography:

Khashaiar Mansouri is currently studying Doctor of veterinary medicine at the Islamic azad university Garmsar



branch. His Research focus is on zoonotic diseases particularly *Mycobacterium* in cat and mice, as well as *Burkholderia mallei* in Guinea pig. Recently, he has given poster presentation in the 19th international and Iranian congress of microbiology.

Recent Publications:

1. Khashaiar Mansouri, et al; Isolation and identification of *Mycobacterium* from captured Mice belonging to tuberculosis infected farms; 2019
2. Khashaiar Mansouri, et al; Isolation and identification of *Mycobacterium* from captured cats belonging to tuberculosis infected farms; 2018
3. Khashaiar Mansouri, et al; Pathogenesis of *Burkholderia mallei* strains, isolated in Iran; 2018

New Frontier's in Applied and Environmental Microbiology; April 24, 2020; London, UK

Citation: Khashaiar Mansouri; Isolation of *Mycobacterium bovis* and Non-tuberculosis Mycobacteria (NTM) from cats and mice in tuberculin-positive dairy cattle; Applied Microbiology 2020; April 24, 2020; London, UK