Diagnosis of animal tuberculosis in veterinary research institute, Malaysia

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ABSTRACT

Introduction: Tuberculosis (TB) is a zoonotic and infectious disease caused by members of *Mycobacterium*. The disease is globally distributed and has the potential to cause public health implications and economic losses. In animals, TB is often reported in ruminants, particularly cattle, however other animal species also might be infected with the disease. The status of TB in animals in Malaysia is still scarce, and the occurrence of positive cases remains unknown due to the limitation of the conventional isolation method. This paper aimed to update the diagnosis of TB in animal specimens received in Veterinary Research Institute (VRI), Ipoh for the year 2022 to 2023 based on real-time PCR method. **Materials and Method:** Lung and lymph node samples were processed and subjected to decontamination according to the WOAH Terrestrial Manual, 2022. The sediment obtained from the sample processing step was subjected to real-time PCR detection using LyteStar™ TB/NTM PCR Kit according to the manufacturer's protocol (ADT Biotech©, Korea). **Results:** A total of 169 lung and lymph node samples were tested for TB for the year 2022 to 2023. About 18.9% (32 out of 169) samples were positive for Non-tuberculous *Mycobacterium* (NTM) but, all the samples were negative for pathogenic Mycobacterium Tuberculosis Complex (MTBC). However, Non-tuberculous *Mycobacterium phocaicum*, were detected in lung and lymph node samples from imported caprine with a clinical history of lung abscess and death. **Conclusion:** This study showed presence of animal TB including NTM for the year 2022 to 2023 based on real-time PCR method.