

## Detection of Mycobacteria spp by PCR in Raw Milk Samples Collected from Iran

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**Abstract :** Background: Mycobacterium tuberculosis complex (MTBC) causes tuberculosis (TB) in humans and animals. Mycobacterium MTBC is one of the most important species of zoonotic pathogens that can be transmitted from cattle to humans. The disease can transmit to human by direct contact with the infected animals, drinking unpasteurized milk and consumption of uncooked meat. The presence of these opportunistic, pathogenic bacteria in bovine milk has emerged as a public-health concern, especially among individuals who consume raw milk. Tuberculosis MTBC is the predominant infectious cause of morbidity and mortality worldwide, It is estimated that one third of the world population (approx. 1.8 billion persons) is infected with M. tuberculosis and each year there are 8 million new cases worldwide. The aim of this study, to detect Mycobacterium MTBC in raw milk samples using polymerase chain reaction (PCR). Materials and Methods: In the present study, 60 raw milk samples were collected from rural areas in Zanjan, Iran. After extraction of DNAs and using special primers for Is6110 gene as a marker, PCR was applied to detect the presence or non-presence of the related gene. Results: According to the findings of this study, 8 (13.5 %) out of 60 milk samples were positive for Mycobacterium spp ( $P < 0.1$ ). Conclusions: The Outbreak of genus Mycobacteria spp in milk samples were determined to be relatively high in Zanjan, Iran.

**Keywords :** Mycobacteria spp, raw milk, PCR, Zanjan

**Conference Title :** ICMGM 2015 : International Conference on Molecular Genetics and Microbiology

**Conference Location :** London, United Kingdom

**Conference Dates :** September 25-26, 2015