

عنوان مقاله:

Detection of Mycobacterium avium subsp. paratuberculosis in the mesenteric lymph nodes of goats by PCR and culture

محل انتشار:

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خلاصه مقاله:

The efficacy of bacterial cultures and IS900-specific polymerase chain reaction (PCR) was compared for the detection of Mycobacterium avium subsp. paratuberculosis (MAP) from the mesenteric lymph nodes of goats. Samples were collected from 75 goats slaughtered in Ilam, in southwest of Iran. Tissue homogenates were inoculated onto four media. The genomic DNA was extracted directly from mesenteric lymph nodes and also from grown bacteria. The purified DNA was utilized as template DNA in the PCR targeting IS900 marker of MAP. IS900 PCR was compared with conventional culture methods. PCR allowed amplification of IS900 element in 27 (36%) of the mesenteric lymph nodes. In comparison, 13 (17.3%) MAP isolates were cultured on Löwenstein–Jensen + mycobactin J. Moreover, the DNA of all 13 MAP isolates was amplified by PCR, confirming the results of cultures. The number of recovered MAP on HEY+ mycobactin J was six isolates (8%). The study found that LJ + mycobactin J was a more appropriate medium for primary isolation of Map from goat tissues. This is the first report of presence of cultivable Map bacilli in mesenteric lymph nodes as well as the first documentation of molecular detection of Map directly from naturally infected goat tissues in southwest of Iran.

کلمات کلیدی:

Detection, Mycobacterium avium subsp. paratuberculosis, goat, PCR, culture, IS900, Mycobactin J

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