

论著

PCR检测婴儿利什曼原虫无症状感染的研究

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摘要

目的 建立适合检测我国婴儿利什曼原虫无症状感染的PCR方法。方法 选择6种常用于诊断内脏利什曼病的PCR引物(RV1-RV2、K13A-K13B、MC1-MC2、174-798、Pia3-Pia4和DBY-Ajs31),以培养的甘肃人株利什曼原虫前鞭毛体种植人抗凝全血抽提的DNA为模板,确定了这6种PCR引物检测我国婴儿利什曼原虫的最适条件,并比较其检测的敏感性和特异性。选用两种敏感性和特异度均佳的引物对采自利什曼病疫区100份无利什曼病症状居民的静脉血进行检测。结果 6种PCR引物检测的特异性均达到100%,而检测的敏感性各异,检测到的原虫数目从0.1~1000条原虫/ml,其中引物RV1-RV2(0.1个原虫/ml血)和K13A-K13B(1个原虫/ml血)敏感性较高。这两对引物对100份无症状居民血的阳性检出率分别为33%(33/100)和30%(30/100)。结论 引物RV1-RV2和K13A-K13B适于检测我国婴儿利什曼原虫无症状感染。在我国甘肃动物源性利什曼病疫区,人群利什曼原虫无症状感染率颇高。

关键词 [婴儿利什曼原虫](#) [无症状感染](#) [PCR](#)

分类号

Study on PCR Method for Detecting the Asymptomatic Infection of *Leishmania infantum*

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Abstract

Objective To establish PCR method for the detection of the asymptomatic infection of *Leishmania infantum*. Methods Six primer pairs were selected for detecting Chinese strain of *L. infantum* by optimizing conditions which affect amplification. Their sensitivity and specificity were compared by using DNAs extracted from human blood seeded with cultured *L. infantum* promastigotes (MHOM/CN/86/GS) as template. Blood samples of the inhabitants without symptoms of visceral leishmaniasis in the endemic area were analyzed with two selected primer pairs with good sensitivity and specificity. Results The specificity of all six primer pairs reached 100%, and the sensitivity varied among the primer pairs. The primer pairs RV1-RV2 (0.1 parasite/ml blood) and K13A-K13B (1 parasite/ml blood) were most sensitive. *Leishmania* DNA was detected in 33% (33/100) and 30% (30/100) human blood samples by RV1-RV2 and K13A-K13B primer pairs respectively. Conclusion This study suggests that RV1-RV2 and K13A-K13B primer pairs are suitable in detecting the asymptomatic infection of *L. infantum*, and the prevalence of the asymptomatic infection is high in human population in the endemic area.

Key words [Leishmania infantum](#) [Asymptomatic infection](#) [PCR](#)

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