

论著

我国不同流行区内脏利什曼原虫分离株kDNA的PCR-SSCP分析

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摘要

目的: 分析我国不同类型流行区内脏利什曼原虫 (L. d.) 分离株 kDNA。方法: 应用利什曼原虫属特异引物 13A, 13B 及据杜氏利什曼原虫四川人分离株 kDNA 微环特异片段序列设计合成的引物 I、引物 II, PCR 扩增不同流行区利什曼原虫分离株 kDNA, 获特定片段, 进行 SSCP 分析。结果: 用引物 I 和引物 II PCR 扩增内脏利什曼原虫分离株 kDNA, 在同样试验条件下, 山丘地区和荒漠地区 L. d. 分离株扩增出 297 bp 特定片段, 而平原地区 L. d. 分离株及新疆皮肤利什曼原虫未扩增出 297 bp 特定片段。将上述各虫株的 297 bp 特定片段进行 SSCP 分析, 可见两个山丘地区的 L. d. 分离株 ssDNA 迁移率相同, 而与荒漠地区新疆 771 分离株则相差较大。用引物 13A, 13B PCR 扩增平原地区的 L. d. 山东分离株和 L. d. 江苏分离株、山丘地区的 L. d. 汶川分离株、L. d. 甘肃分离株, 均扩增出 120 bp 特定片段。经 SSCP 分析, 平原地区的 L. d. 山东分离株和 L. d. 江苏分离株的 ssDNA 迁移率完全相同; 山丘地区的 L. d. 汶川分离株和 L. d. 甘肃分离株 ssDNA 迁移率相同, 但与平原地区者明显不同; 婴儿利什曼 ssDNA 迁移

关键词 [利什曼原虫](#) [kDNA](#) [PCR-SSCP](#)

分类号

ANALYSIS OF KINETOPLAST DNA OF LEISHMANIA ISOLATES IN CHINA BY PCR-SSCP

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Abstract

AIM: To analyse the kDNA of the pathogens of leishmaniasis in China. METHODS: Based on leishmaniasis specific primers 13A, 13B and a set of oligonucleotide primers I and II with Leishmania donovani (L.d.) Sichuan isolate specificity, PCR were conducted to amplify minicircle kDNA fragments (297 bp and 120 bp) in the pathogens of leishmaniasis from different epidemiologic foci in China. The products were analyzed by single strand conformation polymorphism technology (SSCP). RESULTS: PCR amplified 297 bp product occurred in L.d. isolates from hill and desert foci, but no product was found in L.d. isolates from plain foci in China. SSCP of these 297 bp kDNA fragments showed that there was no difference in the mobility of ssDNA between isolates from hill foci, but there was apparent difference in the mobility of ssDNA between L.d. isolates from hill and desert foci. PCR amplified 120 bp products occurred in L.d. Sichuan isolate, L.d. Wenchuan isolate, L.d. Gansu isolate from hill foci and L.d. Shandong isolate and L.d. Jiangsu isolate from plain foci. SSCP of the 120 bp products showed that no difference in the mobility of ssDNA was found between two isolates from plain foci. There was also no difference in the mobility of ssDNA between L.d. Wenchuan isolate and L.d. Gansu isolates from hill foci. But there was apparent difference in the mobility of ssDNA between L.infantum and L.d. isolates from different foci. CONCLUSION: Heterogeneity does exist between the kDNA of L.d. isolates from different foci of leishmaniasis of China.\;

Key words [Leishmania](#) [kDNA](#) [PCR-SSCP](#)

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