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实验报道

PCR-ELISA检测大鼠卡氏肺孢子虫DNA的研究

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摘要

目的 建立卡氏肺孢子虫 (P.c)DNA的聚合酶链反应-酶联免疫吸附测定(PCR-ELISA)方法 ,并探讨其应用价值。 方法 实验组患卡氏肺孢子虫肺炎的SD大鼠和Wistar大鼠各 2 8只 ,采用PCR法扩增大鼠肺组织DNA和支气管肺泡灌洗液 (BALF)DNA ,用PCR ELISA检测其扩增产物。 2 8只患病大鼠分别制作肺组织印片及BALF涂片 ,姬姆萨 (Giemsa)染色镜检 10 0个视野中有无P .c包囊 (或滋养体) ,与PCR ELISA检测扩增产物结果比较。 结果 两种方法检测大鼠肺组织DNA阳性率及BALFDNA阳性率 ,结果相同 ,均分别为 96.4% (27/28)和100% (28/28)。Giemsa染色镜检P.c包囊 (或滋养体) ,结果为阳性的大鼠 ,PCR ELISA检测扩增产物结果也均为阳性。阴性对照组 ,两种大鼠的肺组织和BALF各10份标本 ,均有1只大鼠阳性。 结论 PCR ELISA检测大鼠卡氏肺孢子虫DNA ,敏感性较高 ,特异性较好 ,操作简便 ,具有实用价值。

关键词

卡氏肺孢子虫 大鼠 聚合酶链反应酶联免疫吸附测定 脱氧核糖核酸

分类号

Detection of *Pneumocystis carinii* DNA in Rats by PCR-ELISA

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Abstract

Objective To establish a PCR-ELISA and evaluate its use in detecting DNA of *Pneumocystis carinii*(P.c) in rat model. Methods SD rats and Wistar rats were used in the experiment. P.c DNA from rat lung tissue and BALF was amplified by PCR. The amplified products were visualized by ethidium bromide (EB) staining after agarose gel electrophoresis or detected by ELISA. The results were compared with that by Giemsa stain. Results The positive rate in the two species of rats by the two methods was 96.4% and 100% in lung tissue, 96.4% and 100% in BALF, respectively, with no significant difference (P>0.05). Giemsa positive samples were all positive by PCR-ELISA. The negative control group had one positive by ELISA in lung tissue and BALF respectively. Conclusion PCR-ELISA shows a high sensitivity and specificity in detecting the DNA of *Pneumocystis carinii*, which is a secure and easy use method.

Key words *Pneumocystis carinii* Rat PCR-ELISA DNA

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