实验报道

吉曼尼兹(Gimenez)染色法快速筛选阿米巴滋养体内嗜肺军团菌

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摘更

目的寻找简便、有效的染色方法,用于快速筛选阿米巴滋养体内嗜肺军团菌。方法嗜肺军团菌(Legionella pneumophila)与多噬棘阿米巴(Acanthamoeba polyphaga)共培养,取不同时点的共培养物制作涂片,采用革兰氏染色、吉曼尼兹(Gimenez)染色、姬姆萨(Giemsa)染色、免疫荧光染色等多种方法,用光学显微镜及荧光显微镜观察鉴别阿米巴滋养体与其胞内嗜肺军团菌,并比较这些染色方法的效果。结果Gimenez染色方法效果较好。虫体呈蓝色、嗜肺军团菌呈红色,两色分明。在共培养初期即可观察到阿米巴滋养体胞内少量的杆状嗜肺军团菌。本法灵敏度高,省时、耗材少,操作简便。结论Gimenez染色对阿米巴滋养体胞内嗜肺军团菌形态学检测具有实用价值,适合于实验室检测和临床诊断应用。

关键词

吉曼尼兹染色 染色与标记 阿米巴滋养体 嗜肺军团病杆菌

分类号

Gimenez Staining: A Rapid Method for Initial Identification of *Legionella pneumophila* in *Amoeba* Trophozoite

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Abstract

Objective To establish a rapid staining method for facilitating initial identification of Legionella pneumophila in amoebal trophozoite. Methods Acanthamoeba polyphaga and Legionella pneumophila were co-cultured under laboratory condition. At consecutive time points during the culture, smears of the cultured products were made on glass slides for staining purposes. Different types of stainings including Gram's staining, Gimenez staining, Giemsa staining and immunofluorescence were used to determine the best method for the identification of amoebal pathogens. Results Gimenez staining technique is simpler and yields better results as compared with the other three stainings. Gimenez stain gives the best color and contrast for amoeba and amoebal Legionella Amoeba trophozoites and/or cysts showed a distinct purplish blue with amoebal Legionella in red. Amoebal Legionella can be distinguished clearly at an earlier time of co-culture, providing a proper sensitivity. It takes only 10 minutes to finish the operation. The other techniques require the use of expensive reagents, are relatively time-consuming, and involve complex staining procedures. Conclusion Gimenez staining is of value for the initial identification of amoebal pathogens, and it is suitable for laboratory diagnosis.

Key words <u>Gimenez staining</u> <u>Staining and labeling</u> <u>Amoeba trophozoite</u> <u>Legionella</u> <u>pneumophila</u>

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