

论著

无绿藻的表型及其分子生物学鉴定

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摘要: 目的 通过表型及分子生物学方法,正确鉴定无绿藻及其变种。方法 回顾、总结与分析无绿藻的形态与结构、表型特征及生理生化及分子生物学鉴定、对常见抗真菌药物的敏感性及其组织病理学特征。结果 通过表型及分子生物学技术成功鉴定2株来自脑脊液及淋巴结的无绿藻:中型无绿藻碳水化合物变种及中型无绿藻波多黎各变种,并展示相关照片。结论 无绿藻病的症状尚无特异性,其诊断主要依靠真菌学检查。标本的直接镜检、真菌培养及组织病理检查是主要手段。对无绿藻菌种的鉴定除了菌落形态、镜下结构外(含内孢子的孢子囊是无绿藻属的重要特征),糖类、醇类的同化利用,温度试验,结合分子生物学鉴定将有助于菌种的鉴定。

关键词: 中型无绿藻碳水化合物变种 中型无绿藻波多黎各变种 鉴定 分子生物学鉴定

Identification of prototheca by phenotype and molecular biology techniques

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Abstract: Objective To identify Prototheca and its varieties by phenotype and molecular biology techniques. Methods The structure and phenotypic characteristics, physiology, biochemistry and molecular biological identification, sensitivity to common anti-fungal drugs and characteristics of histopathology were reviewed, summarized and analyzed. Methods Two strains of *Prototheca* (*P. zopfii* var. *hydrocarborea* and *P. zopfii* var. *portoricensis*) were identified from cerebrospinal fluid and lymph nodes by phenotypic and molecular biology techniques and relevant photographs were showed. Conclusions Diagnosis of Protothecosis mainly depends on mycological examinations including direct microscopic examination, culture, and histopathology because of no characteristic in clinical. Carbohydrates assimilation, temperature resistance and molecular biological methods would be helpful for strain identification.

Keywords: *P. zopfii* var. *hydrocarborea* *P. zopfii* var. *portoricensis* identification molecular biological identification

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