

عنوان مقاله:

Molecular Detection of Mucorales in Human Tissues

محل انتشار:

سیزدهمین کنگره بین المللی میکروب شناسی بالینی استاد البرزی (سال: 1398)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction and Objectives: Mucorales species are the cause of invasive fungal infections. The diagnosis of mucormycosis is still challenging in laboratories and clinical units. In the present study, we evaluated a Mucorales PCR method using tissue specimens from clinical patients of Shiraz hospitals. **Materials and Methods:** Tissue samples were obtained from patients of Shiraz hospitals within 2017-2018. Fresh samples lysed by proteinase K and incubated overnight at 56°C. For paraffin-embedded tissue, the paraffin was removed by xylene and then, by ethanol (96–100%). DNA extraction was performed using the Invisorb Spin DNA Extraction Kit, as per the instructions in the kit. DNA extracts from all specimens were used for semi-nested PCR of Mucorales species by (ZM1, ZM2 and ZM3) primers. The patient s data were analyzed by SPSS. **Results:** Seventy-one patients were recruited from 4 hospitals (Amir, Namazi, Dena, Khalili). The mean age was 11 years (<1-80) with 47.9 % (34/71) female. Mucormycosis was detected in 11/71 (15.5%) of tissue specimens with PCR. Common underlying conditions were hematological disorder 7/11 (63.6 %), and Mucormycosis 2/11 (18.2%). The sites of infection were liver, eye and sinus. Among the positive cases, 36.4% (4/11) received antifungal drugs. **Conclusion:** Mucormycosis is commonly a fetal infection among susceptible patients. It affects patients, especially those with hematological disorders. Molecular detection of Mucorales DNA by using specific PCR targeting could be useful for timely diagnosis of mucormycosis in clinical settings.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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