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عنوان مقاله:

Identification of fungal causative agents of rhinosinusitis from Mashhad, Iran

محل انتشار:

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خلاصه مقاله:

Background and Purpose: Rhinosinusitis is a common disorder, influencing approximately ۲۰% of the population at some time of their lives. It was recognized and reported with expanding recurrence over the past two decades worldwide. Undoubtedly, correct diagnosis of fungi in patients with fungal rhinosinusitis affects the treatment planning and prognosis of the patients. Identification of the causative agents using the standard mycological procedures remains difficult and time-consuming. Materials and Methods: Based on clinical and radiological parameters, ۱۰۶ patients suspected of fungal rhinosinusitis were investigated in this cross-sectional prospective study from April ۲۰۱۲ to March ۲۰۱۶ at an otorhinolaryngology department. In this study, internal transcribed spacer (ITS) and calmodulin (CaM) sequencing were respectively validated as reliable techniques for the identification of Mucorales and Aspergillus to species level (both agents of fungal rhinosinusitis). Results: Of these, ۶۳ (۵۹.۴%) patients were suspected of allergic fungal rhinosinusitis (AFRS), ۴۰ (۳۷.۷%) patients suspected of acute invasive fungal rhinosinusitis (AIFRS), and ۳ (۲.۸%) patients suspected of fungus ball. In patients suspected of AFRS, AIFRS, and fungus ball only ۷, ۲۹, and ۱ had positive fungal culture, respectively. After ITS and CaM sequencing, Aspergillus

flavus was the most common species isolated from non-invasive forms, and A. flavus and Rhizopus oryzae were more frequently isolated from invasive forms. Conclusion: Aspergillus flavus is the most common agent of fungal rhinosinusitis in Iran, unlike most other reports from throughout the world stating that A. fumigatus is the most frequent .causative agent of this disease

کلمات کلیدی:

Calmodulin, Identification, ITS, Fungal rhinosinusitis, Molecular technique

لینک ثابت مقاله در پایگاه سیویلیکا:

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