

R2870

Abstract (publication only)

Trichoderma longibrachiatum as a pathogen in an immunocompetent patient

I. Doczi*, E. Molnar-Gabor, L. Hatvani, L. Kredics (Szeged, HU)

Objectives: Pathogens of fungal diseases of the nose and paranasal sinuses originated from the environment (mainly from the air). Clinical manifestations depend on the immune status of the host. Asymptomatic colonization of these anatomic areas by fungi is common, but no treatment is needed. However, fungal rhinosinusitis often requires a combined approach of surgical intervention, antimycotic therapy and corticosteroid administration. We report a case of isolated sinusitis sphenoidalis in an immunocompetent patient caused by *Trichoderma longibrachiatum*. A 29-year-old woman was presented with symptoms of headache, nasal blockage, retrobulbar pressure and lost sense of smell. She was constantly under otorhinolaryngological care because of pansinusitis and allergic rhinitis. She was operated because of isolated sinusitis sphenoidalis can be seen on the computer tomographic scan of her paranasal sinus. **Methods:** The intraoperative sample was cultured by the conventional methods for the recovery of bacteria and fungi. Antimicrobial susceptibility testing was made by disc diffusion and Etest methods. Molecular identification of the isolate at species level was performed by PCR amplification and sequence analysis of the internal transcribed spacer (ITS) region (ITS1 - 5.8 S rRNA gene - ITS2) of the ribosomal RNA gene cluster and a 0.7 kb fragment of the translation elongation factor 1alpha (*tef1*) gene. Sequence analysis was carried out with the aid of TrichOkey 2.0, the oligonucleotide BarCode program. **Results:** In addition to filamentous fungal strain, *Escherichia coli* was cultured from the clinical sample, and it was sensitive to all antibiotics recommended for this species. Based on macro- and micromorphological examinations, the fungal isolate was identified as a *Trichoderma* species. Sequence analysis of the ITS region revealed that the isolate is belonging to the section *Longibrachiatum* of the genus *Trichoderma*, being either *T. longibrachiatum* or *Hypocrea orientalis*, and the sequence analysis of *tef1* revealed the final identification of the isolate: *T. longibrachiatum*. **Conclusion:** Patient underwent two surgical interventions. As an additional therapy, good ventilation of sphenoid sinus, topical steroid nasal lavage, topical amphotericin B and suction resolved the complaints of the patient. *T. longibrachiatum* is commonly occurring in the soil, but it can cause severe fungal infection even in immunocompetent patients.