

Lack of evidence of endosymbiotic toxin-producing bacteria in clinical *Rhizopus* isolates.

Partida-Martinez LP, Bandemer S, Rüchel R, Dannaoui E, Hertweck C (2008) Lack of evidence of endosymbiotic toxin-producing bacteria in clinical *Rhizopus* isolates. *Mycoses* 51(3), 266-269.

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Abstract

Infections by *Rhizopus* spp. account for about 90% of zygomycoses, many of which are lethal in immunocompromised patients. We recently noted that several strains of *Rhizopus microsporus* harbour rare bacterial endosymbionts (*Burkholderia* sp.) for the production of 'mycotoxins', which might play a role as virulence factors in human *Rhizopus* infections. In this study eight clinical *Rhizopus* spp. isolates have been investigated for the presence of toxin-producing bacterial endosymbionts. By metabolomic data, PCR targeting bacterial 16S rDNA and microscopic investigations with fluorescence dyes we provide three lines of evidence showing that the fungal strains are not associated with endofungal bacteria. Consequently, toxin-producing bacteria are not essential for *Rhizopus* infections and the development of zygomycoses in humans.

Beteiligte Forschungseinheiten

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