Fungal species identification from avian lung specimens by single hypha laser microdissection and PCR product sequencing.

Olias P, Jacobsen ID, Gruber AD (2011) Fungal species identification from avian lung specimens by single hypha laser microdissection and PCR product sequencing. *Med Mycol* 49(1), 56-61.

Abstract

Accurate species diagnosis in cases of fungal pneumonia may be hampered by environmental contamination and colonization resulting in false-positive results. Our novel approach for fungal species diagnostics combines fluorescent staining of mounted cryosections with the optical brightener Blankophor, laser capture microdissection and PCR amplification with subsequent sequencing of the first internal transcribed spacer region (ITS-1). Using clinical specimens from infected birds, we show that the procedure is suitable for species identification from single hyphae of intralesional filamentous fungi. Our data also suggest that multiple Aspergillus fumigatus strain infections may occur frequently in pulmonary aspergillosis of birds.

Beteiligte Forschungseinheiten

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