Detection of *fusarium* species in clinical specimens by probe-based real-time PCR.

Springer J, Walther G, Rickerts V, Hamprecht A, Willinger B, Teschner D, Einsele H, Kurzai O, Loeffler J (2019) Detection of *fusarium* species in clinical specimens by probe-based real-time PCR. *J Fungi (Basel)* 5(4), 105.

Abstract

The mold Fusarium is a ubiquitous fungus causing plant, animal and human infections. In humans, Fusarium spp. are the major cause of eye infections in patients wearing contact lenses or after local trauma. Systemic infections by Fusarium spp. mainly occur in immunosuppressed patients and can disseminate throughout the human body. Due to high levels of resistance to antifungals a fast identification of the causative agent is an urgent need. By using a probe-based real-time PCR assay specific for the genus Fusarium we analysed several different clinical specimens detecting Fusarium spp. commonly found in clinical samples in Germany. Also, a large collection of lung fluid samples of haematological patients was analysed (n = 243). In these, two samples (0.8%) were reproducibly positive, but only one could be confirmed by sequencing. For this case of probable invasive fungal disease (IFD) culture was positive for Fusarium species. Here we describe a rapid,

probe-based real-time PCR assay to specifically detect DNA from a broad range of Fusarium species and its application to clinically relevant specimens.

Involved units

Fungal Septomics Oliver Kurzai Read more

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