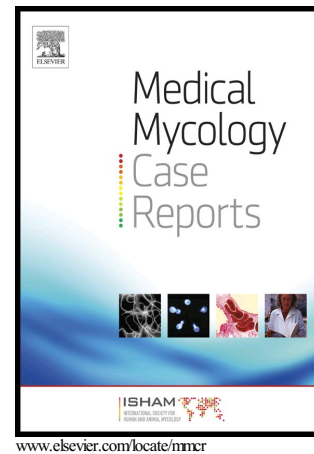


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PII: S2211-7539(18)30089-7
DOI: <https://doi.org/10.1016/j.mmcr.2018.09.002>
Reference: MMCR309

To appear in: *Medical Mycology Case Reports*

Received date: 1 July 2018
Revised date: 16 August 2018
Accepted date: 11 September 2018

Cite this article as: McKenna E. Boyd, Harry Dao, Jerry D. Estep, Yve T. Huttenbach and Vagish Hemmige, Utilization of Voriconazole Drug Monitoring in the Treatment of Cutaneous *Scedosporium apiospermum* Infection, *Medical Mycology Case Reports*, <https://doi.org/10.1016/j.mmcr.2018.09.002>

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Utilization of Voriconazole Drug Monitoring in the Treatment of Cutaneous *Scedosporium apiospermum* Infection

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Abstract

We report the use of voriconazole troughs to achieve appropriate therapeutic levels in treatment of a cutaneous *Scedosporium apiospermum* infection. Following heart transplantation, a 63-year-old immunocompromised patient presented with post-traumatic nodular lesions on his right shin. Pathology showed fungal yeasts with culture revealing *Scedosporium apiospermum*. According to therapeutic drug monitoring, initial voriconazole treatment was subtherapeutic requiring increased dosing until appropriate therapeutic trough levels were attained, and resolution of the fungal infection was achieved.

Keywords:

Cutaneous *Scedosporium apiospermum*

Voriconazole

Trough

Transplant

Immunocompromised

1. Introduction

In recent years, *Scedosporium apiospermum* has gained recognition as a causative agent of infection in immunocompromised hosts, notably transplant recipients.^{1,2,3} Even in immunocompetent hosts, traumatic inoculation can result in localized cutaneous infections.⁴ Diagnosis can prove difficult owing to clinical and morphological similarity with other fungal species, namely *Aspergillus* and *Fusarium*.^{1,4} Accurate diagnosis is essential, as this opportunist is highly antifungal-resistant often requiring unconventional antifungal treatment.^{1,2,4,5}

In this report, we present a case of cutaneous *Scedosporium apiospermum* infection treated with voriconazole. Therapeutic drug monitoring revealed subtherapeutic voriconazole levels requiring repeated dosage increases. Once therapeutic voriconazole levels were achieved, the patient's infection successfully resolved. A previous study reported successful use of voriconazole drug monitoring to treat lung scedosporiosis.⁶ However, to our knowledge, this is the only reported case of cutaneous *S. apiospermum* infection utilizing voriconazole troughs to achieve therapeutic antifungal treatment.

2. Case

A 63-year-old African American male with past medical history significant for heart transplantation, on mycophenolic acid, prednisone, and tacrolimus immunosuppressant therapy, presented to dermatology on Day 0 for disseminated cutaneous zoster. The patient also reported

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