Case Report/Relato de Caso

Recurrent *Acremonium* infection in a kidney transplant patient treated with voriconazole: a case report

Infecção recidivante por *Acremonium* em paciente transplantado renal tratado com voriconazol: relato de caso

Felipe Francisco Tuon[1], Carolina Pozzi[2], Sergio Ricardo Penteado-Filho[1], Ricardo Benvenutti[2] and Fabiana Loss de Carvalho Contieri[2]

ABSTRACT

Acremonium infection is rare and associated with immunosuppression. A case of recurrent cutaneous *Acremonium* infection after short term voriconazole use is described. Surgical resection was the definitive therapy. Oral voriconazole was used in the treatment of *Acremonium* infection, but recurrence was associated with short therapy. Prolonged antifungal therapy and surgical resection are discussed for the treatment of localized lesions.

Key-words: Voriconazole. *Acremonium*. Fungal infection.

RESUMO

Infecção por *Acremonium* é rara e pode estar associada com imunossupressão. Descrevemos um caso de infecção recorrente de pele por *Acremonium* após tratamento breve com voriconazol. Ressecção cirúrgica foi o tratamento definitivo. Terapia prolongada com antifúngicos e ressecção cirúrgica são discutidas para o tratamento de doenças fúngicas localizadas.

Palavras-chaves: Voriconazol. *Acremonium*. Infecção fúngica.

INTRODUCTION

Acremonium is a ubiquitously fungus present in the soil and human infection is extremely uncommon[1,2]. Dermatophytoses, keratitis and mycetomas are the most common clinical presentation. Immunosuppressed patients show a large clinical spectrum, including pneumonia, arthritis, osteomyelitis, endocarditis, peritonitis, meningitis and sepsis[1,3,4]. Immunosuppressed patients can also present localized cutaneous lesions[1]. A case of cutaneous lesion caused by *Acremonium* sp with recurrence after a short course of voriconazole is described.

CASE REPORT

A 47 year-old male farmer, living in Mabore (a southern city in Brazil) was admitted to hospital due to skin lesion in the thigh on March 22, 2009. The patient has been a kidney transplant patient since November 7, 2007, using mycophenolate mofetil, tacrolimus and prednisone. The lesion, measuring 1.5cm in diameter, appeared two months before admission and presented purulent discharge (**Figure 1**). There was no history of trauma, the rest of the physical examination was normal and laboratorial tests were irrelevant. A skin biopsy showed a granulomatous reaction with giant cells, while Grocott stain showed phialide and phialoconidium (**Figure 2**). The culture was positive for *Acremonium* sp, though species identification was not performed.

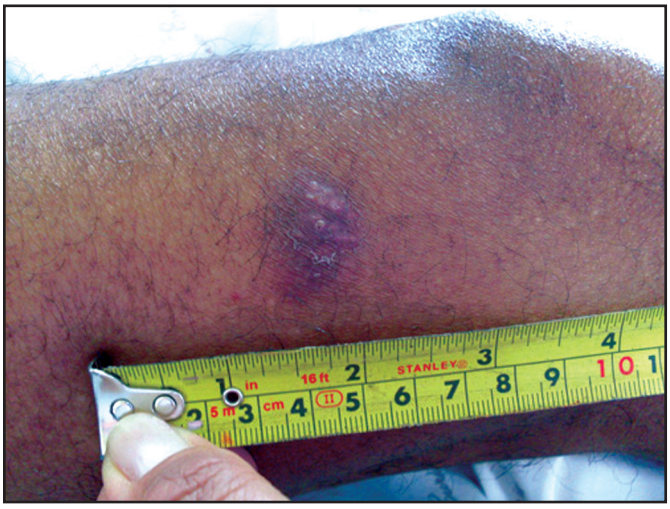

FIGURE 1 - Cutaneous lesion due to *Acremonium sp*.

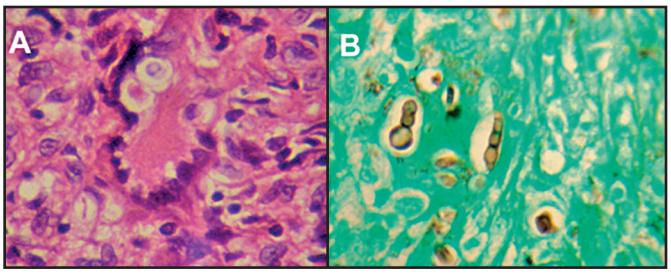

FIGURE 2 - Histological findings verified in a cutaneous lesion caused by *Acremonium* sp. A) Granulomatous infiltrate with giant cells and phagocytosis of yeast-like structures. B) Grocott stain showing phialide and phialoconidium suggestive of *Acremonium* sp.

Immunosuppressive therapy was suspended and voriconazole 200mg b.i.d. was used for 14 days. The lesion improved and drainage was suspended; however, after one month, the lesion returned and a new culture showed *Acremonium* sp with histological analysis showing the same aspect of the first biopsy. Surgical resection of the lesion was performed and immunosuppressive therapy was reintroduced. The lesion cured without recurrence after six months.

1. Division of Infectious and Parasitic Diseases, Hospital Universitário Evangélico de Curitiba, Curitiba, PR. 2. Division of Renal Transplant, Hospital Universitário Evangélico de Curitiba, Curitiba, PR.

Address to: Dr. Felipe Francisco Tuon. Infectious and Parasitic Diseases Clinic, Hospital Universitário Evangélico de Curitiba. Alameda Augusto Stellfeld 1908/3º andar, SCIH - Bigorrilho, 80730-150 Curitiba, PR, Brazil.

Phone: 55 41 3240-5055; Fax: 55 41 3240-5274

e-mail: flptuon@gmail.com

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DISCUSSION

This case suggested that short therapy with voriconazole is inadequate for the treatment of cutaneous lesions caused by certain yeasts occurring on transplant patients. We believe that prolonged therapy should be used for transplant patients. The improvement of the lesion after two weeks of therapy demonstrated the efficacy of voriconazole against *Acremonium*, although no sensitivity test was performed. Nevertheless, short therapy (two weeks) was insufficient for fungus eradication from the skin. The fact that the cutaneous lesion was localized permitted a surgical resection approach.

A previous review summarized clinical experience with infections caused by species of *Acremonium*[5]. Two cases of cutaneous lesions have been published involving transplant patients. The first was described by Strabelli et al in a heart transplant patient[6]. This patient presented a lesion on the knee that was treated with surgery and local therapy. In another case, a subcutaneous infection in a kidney transplant patient was cured with surgical resection of the abscesses and ketoconazole[7]. In some instances, the particular species of *Acremonium* cannot be determined by morphology, as described in several reports and in this case[5].

The drug of choice for treatment of *Acremonium* infections is amphotericin; however, the species presents low susceptibility to most antifungals, including imidazoles, fluorocytosine and amphotericin B. *In vitro* studies have shown that *Acremonium* can be susceptible to voriconazole, but resistant to other imidazoles[8]. Voriconazole has been used in some cases of *Acremonium* infections with success[9,10]. This patient received voriconazole due to renal graft and risk of renal failure.

In summary, *Acremonium* sp can cause skin lesions in kidney transplant patients. Voriconazole improved the lesion but recurrence occurred with short therapy. Considering the cost of new antifungal drugs, surgical resection is an adequate approach in these cases.

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