Sir - Before the era of highly active antiretroviral treatment (HAART), oral and oro-pharyngeal candidiasis were a frequent complication in immune-deficient HIV infected patients. Often, these infections were recurrent and tended to become resistant to anti-fungal agents (1).

With the implementation of HAART since 1996, the incidence of these candida infections considerably decreased, and consequently, infections with azole-resistant strains (2). There are however still HIV infected patients with low CD4+lymphocyte counts, even in the developed world. They include people diagnosed in an advanced stage of disease who never received HAART, people who do not adhere to their antiretroviral treatment regimen, and people infected with resistant HIV strains. Such patients require repetitive courses of antifungal treatment, with a high probability of developing multidrug resistant candida strains.

Today several new antifungal agents including voriconazole and echinocandine are studied in phase III clinical trials, mainly for use in systemic fungal infections in immune compromised patients such as transplant and dialysis patients. So far however, little is known about their efficacy in multi-resistant fungal infections in AIDS patients.

We report a case of an AIDS patient with a multi-drug resistant candida infection who responded clinically well to intravenous echinocandine treatment.

A 40 year old AIDS patient was diagnosed to be HIV infected in 1995 when he presented with a Pneumocystis carinii pneumonia and oral candidiasis. The candida infection was successfully treated with oral fluconazole. Despite HAART (initially indinavir, lamivudine and stavudine and later combinations of all other commercially available antiretrovirals), his CD4+lymphocyte count always remained below 20/µl and his viral load never decreased below 30.000 copies/ml plasma. During 5 years he was treated for recurrent oral candidiasis and candida oesophagitis with different antifungal agents including fluconazole, miconazole, itraconazole, nystatine and ketoconazole, but at the end none of these antifungals were able to suppress the infection. In May 1999, due to a very severe persistent form of oral candidiasis, amphotericine B, 0.5mg/kg/day was started intravenously four times a week. The oral candidiasis regressed but did not disappear completely. In June 1999, amphotericine B had to be given on a daily basis with doses reaching up to 1mg/kg/day to control the candida infection. Because his renal function deteriorated, the amphotericine B had to be discontinued. In December 1999 a throat swab showed the presence of a Candida glabrata and Candida albicans infection. Oral voriconazole was started and initially the candida infection disappeared. In September 2000, despite the voriconazole treatment, the oral candida started to grow extensively all over the mouth mucosae. His CD4+lymphocyte count was at this time 10/µl and his viral load 190.000 copies/ml plasma. A throat swab revealed once again a Candida albicans infection. Amphotericine B was given but the 0.5 mg/kg starting dose immediately
End of October 2000, echinocandine was started intravenously 50mg/day. Within 24 hours the candida lesions started to disappear and after five days no more lesions were seen. A new throat swab did not reveal any candida infection. He received echinocandine during 10 days. The drug was well tolerated. Seven days after stopping the echinocandine however, the oral candidiasis reappeared. Echinocandine again cured the candida infection within five days, but the treatment was finally discontinued after 15 days, because of thrombocytopenia. In the weeks following, the candida reappeared. Meanwhile the patient's general condition degraded and he died early January 2001.

Echinocandine exhibits in vitro fungicidal activity against a number of clinically important fungi including candida (3). Due to its unique mechanism of action (inhibitor of β-(1,3)-D-glucan synthesis), it remains active against candida isolates resistant to other antifungal agents including fluconazole, 5-fluorocytosine, and amphotericine B (4)

This case report suggests that echinocandine may be a promising drug for the treatment of multidrug (including voriconazole) resistant oral candidiasis in persons with HIV infection.

References: