disease; normal radiographs of the lungs; and cultures of the blood, urine, and gastric aspirate that were negative for mycobacteria.

The choice and duration of therapy for infections due to *M. kansasii* have been variable. Current recommendations include the administration of at least three antituberculous agents for a minimum of 18 months [7, 10]. The patient we described did not undergo surgical resection of the infected area, given that the extent of cecal involvement would have required the removal of a significant portion of the colon, a procedure associated with undetermined complications and risks.

This case emphasizes the need to consider the diagnosis of *M. kansasii* for HIV-infected patients with low CD4$^+$ cell counts who present with signs and symptoms of acute appendicitis. In addition, this case demonstrates that resection of the infected area is not requisite for a response to medical therapy.

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References


### Amphotericin B Lipid Complex Therapy in an AIDS Patient with *Rhodotorula rubra* Fungemia

*Rhodotorula* species, yeasts that belong to the family Cryptococcaceae, characteristically produce a coral-red pigment, hence the term, “red yeast” (figure 1). *Rhodotorula* species are found in soil, water, plant materials, and other environmental sources. They have been isolated from the skin, nails, conjunctiva, and the respiratory, gastrointestinal, and urinary tracts, and they are generally considered commensals or contaminants [1, 2]. However, in immunocompromised individuals, infections due to typically nonpathogenic commensal organisms such as *Rhodotorula* species may occur and can be life-threatening. Patients with solid tumors, lymphoproliferative diseases, AIDS, chronic renal failure, and diabetes mellitus are at greatest risk. Reports of infections due to *Rhodotorula* species include septicemia, endocarditis, meningitis, ventriculitis, and peritonitis [3, 4]. Other than immunologic compromise, the common risk factor associated with these infections in most patients is the use of indwelling vascular catheters [3, 5, 6].

The treatment of catheter-related infections due to *Rhodotorula* species is controversial. The roles of catheter removal and antifungal therapy either alone or together are unclear. We report a case of *Rhodotorula* fungemia in a patient with AIDS who required removal of his Hickman catheter and treatment with amphotericin B lipid complex to sterilize his blood.

A 50-year-old homosexual man was diagnosed with AIDS in 1992. His course was complicated by cytomegalovirus encephalitis and retinitis, *Mycobacterium avium* complex bacteremia, wasting syndrome, esophageal candidiasis, and chronic renal insufficiency secondary to treatment with multiple nephrotoxic drugs. During the 18 months before his hospital admission, he received foscarnet via a...
Hickman catheter. While he was receiving antiretroviral therapy, his CD4 cell count was 157/mm³, and his viral load was undetectable.

A few days before his hospital admission, the patient noted erythema and tenderness without discharge at the Hickman-catheter exit site. He denied fever or chills. Blood was drawn from the Hickman catheter and from a peripheral site; cultures of the specimens yielded *Rhodotorula rubra*, and the patient was admitted to the hospital.

Physical examination was remarkable for only minimal tenderness and the patient was admitted to the hospital. A chest radiograph showed no cardiac vegetations. Despite discontinuation of foscarnet therapy and the administration of amphotericin B lipid complex, the patient’s creatinine level rose to a peak of 2.5 mg/dL. Cultures of blood drawn on the seventh hospital day and thereafter were sterile. The patient was discharged after receiving a total of 5 g of amphotericin B lipid complex over 16 days. His serum creatinine level was 2.3 mg/dL. Repeated cultures of blood, drawn 1 month after completion of antifungal therapy, were sterile.

Recently, there has been an increase in the reported incidence of fungemia and sepsis due to *Rhodotorula* species [7], and invasion of other normally sterile sites such as the aortic valve, CSF, lungs, kidneys, bone marrow, and liver [6, 8]. Nearly all cases of infection due to *Rhodotorula* species reported in the literature have been associated with the use of indwelling vascular catheters [3, 5, 7, 8]. The management of catheter-related *Rhodotorula* infections remains controversial. Some investigators suggest antifungal treatment alone [3, 5], whereas others describe resolution of the fungemia associated with catheter removal only [4, 7]. Still others advocate both removal of the indwelling catheter and use of antifungal therapy, given that infections due to *Rhodotorula* species can be severe and life threatening [4, 7].

**Psosas Muscle Abscess Due to Mycobacterium kansasii in an Apparently Immunocompetent Adult**

Abscess of the psosas muscle, a relatively uncommon condition, is caused by *Staphylococcus aureus* or enteric gram-negative rods. Amphotericin B, alone or in combination with flucytosine [3, 9] or ketoconazole [5, 8], has been the antifungal agent most commonly used for the treatment of *Rhodotorula* infections. In view of our patient’s preexisting renal insufficiency and the concomitant use of foscarnet, we elected to treat him with amphotericin B lipid complex in hopes of mitigating further renal insult. To our knowledge, we have described the first case of a lipid-associated amphotericin B formulation for treatment of a *Rhodotorula* infection. Such formulations provide an important treatment option for patients with serious fungal infections who have preexisting renal disease, those who are at increased risk for renal insult, or those patients who develop renal insufficiency while receiving standard amphotericin B therapy. The dosage and duration of treatment with these agents still need to be determined.

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