
Severe Sepsis and fungemia with *Saccharomyces cerevisiae*

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Background: *Saccharomyces cerevisiae* is known as an apathogenic yeast used in human food production. *Saccharomyces boulardii* even has a role in the treatment of enterocolitis with persistent diarrhea, probably by contributing to the reconstitution of enteral flora. We present a case of sepsis with *Saccharomyces cerevisiae* fungemia during treatment with *Saccharomyces boulardii*.

Case: A 61 years old male was admitted to the hospital. He had undergone hemicolectomy with end-to-end-anastomosis three weeks earlier because of stenosing carcinoma and had suffered from persistent diarrhea ever since. The patient presented in shock, with somnolence, exsiccosis, fever, dyspnea, nontender abdomen, vivid bowel sounds. Laboratory values (CrP 299 mg/l, leukocytes 17,9 GPt/l) indicated a severe infection. Ultrasound, X-ray, CT scan and intestinal endoscopy revealed no abdominal focus of infection.

The patient was intubated, mechanically ventilated and treated with antibiotics and *Saccharomyces boulardii*. A relapsing ventilator-associated pneumonia complicated the further course of disease. The septic shock had successfully been treated, though. On day 24, the patient's condition worsened, he had fever up to 40.1°C, developed acute renal failure and, again, septic shock requiring catecholamine infusion. On this same day, *Saccharomyces cerevisiae* was isolated from three arterial blood cultures. This finding was confirmed on days 26 and 27. Routine mycological diagnostics (nasal, pharyngeal and anal swabs, tracheal secretion, urine) had revealed no more than insignificant anal colonization with *Candida albicans*. The mycotic bloodstream infection was treated with 800 mg fluconazole i.v. for 13 days. Follow-up cultures showed no further sign of fungal bloodstream infection. Within the following five weeks, the patient recovered, yet the diarrhea persisted. Finally, a jejuno-colic fistula turned out to be the cause and the patient underwent surgical revision.

Conclusion: A bloodstream infection with *Saccharomyces cerevisiae* was proven by several cultures. A causal relation to the therapy with *Saccharomyces boulardii* seems possible.