

Category: 6a. Fungal disease epidemiology

6556 *Saccharomyces cerevisiae* fungaemia: a 10-year review in the CHU of Liege (Belgium)

Background: *Saccharomyces cerevisiae* is a yeast which has been used for decades mainly as probiotic in the medical field. For a long time, it was considered as safe and non-pathogenic but recently, the number of infections caused by this yeast has been rising particularly in immunocompromised patients. This study presents a review of cases of deep infection caused by *S. cerevisiae* during the last 10 years including the clinical relevance and therapeutic management.

Materials/methods: The systemic infections due to *Saccharomyces cerevisiae* that occurred at the University Hospital of Liege from January 2000 to January 2019 were reviewed by using the Glims laboratory database. The minimal inhibitory concentrations (MICs) obtained by microdilution with Sensititre YeastOne YO10 test (Trek, USA) was compared to the therapeutic management applied.

Results: During this period, from 2016 to 2019, 11 patients were diagnosed with fungemia due to *S. cerevisiae*. All the systemic infections occurred in patients presenting one or multiple risk factors: 4 out of 11 were oncologic patients upon chemotherapy, corticoids or radiotherapy, 3 were under Enterol[®] and 9 patients received broad-spectrum antibiotics prior to fungemia. Only 3 patients who were immunocompromised had multiple positive blood cultures (9, 5 and 3 respectively) contrary to the others, which had only one positive bottle. High MIC values were obtained for fluconazole (4-256 µg/mL), while MICs for amphotericin B were low (0.002-2 µg/mL). Among the 11 patients, 4 were treated with fluconazole, 2 with Amphotericin B and 5 only by catheter removal. All had a favorable outcome, except 2 oncologic patients who were under fluconazole (MIC = 8 µg/mL) and one who wasn't treated due to her critical state.

Conclusions: The last 3 years, we noticed the emergence of blood infections caused by this yeast. They progressed into invasive conditions only in immunocompromised patients, who had been directly in contact with Enterol[®] or indirectly by caregivers. Therefore, it is necessary to limit the contact of fragile patients with probiotics containing the yeast. About the treatment, Amphotericin B seems to be the best option but due to its toxicity, fluconazole is preferably used, the outcome depending on the case.