

P0357

Paper Poster Session

Fungal infection epidemiology

Candida contamination of liver, kidney and heart preservation fluids: a ten-year monocentric retrospective study

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Background: In solid organ transplantation, *Candida* contamination of the preservation fluid (PF) can lead to life-threatening complications in the recipients. This fungal contamination mainly occurs during organ procurement, which frequently involves digestive tract breach. In recipients, the complications concern mainly mycotic arteritis and/or aneurysm due to the vascular tropism of *Candida*. The aim of this study was to determine a 10-year incidence of *Candida* contamination of PF in a large transplant center in France and their clinical consequences.

Material/methods: From January 2004 to December 2013, a retrospective cohort analysis was performed in Henri Mondor Hospital in France, including all patients who underwent liver, kidney or heart transplantation. During this period, mycological results of PF analyzed in our lab were collected from our database. Data from patients with *Candida* positive PF were recorded including occurrence of infections, treatments received and outcomes.

Results: In the study period, 1584 organ transplantations (818 kidneys, 633 livers and 133 hearts transplantations) were performed in our center. Mycological analyzes of PF were performed in 1459 (92.1%) transplantations. Since 2008 and the recommendations of The French Biomedicine Agency, the percentage of PF analysed increase significantly (90.5% between 2004 to 2008¹ (period A) vs. 94.3% between 2009 and 2013 (period B), $p < 0.01$). *Candida* was isolated from 33 (2.2%) out of 1459 PF samples with 2,5%, 2,4% and 0% of PF in the context of liver, renal and heart transplantation, respectively. Thus, *Candida* PF contamination decreases between the period A and B (2.8% vs. 1.7%). This decrease is observed for each organ transplants with 3.3% vs. 1.9% and 3.1% vs. 1.8% in the context of liver and renal transplantation, respectively. *Candida albicans* was the most frequent isolated species (61%), following by *C. glabrata* (17%), *C. krusei* (9%) and others (3 %). Antifungal MIC by Etest[®] had been performed on all positive PF. *C. albicans* isolates were susceptible to fluconazole and echinocandins. *C. glabrata* isolates were intermediate to fluconazole but susceptible to echinocandins. Seventy eight percent of patients were treated. Among these patients: 39% were treated with fluconazole, 33% with caspofungin with switch to fluconazole in 21%, 6% with voriconazole. The treatment was maintained for at least 2 weeks. Thirty-one patients were alive at one-year. One liver transplant recipient developed *C. albicans* mycotic aneurysm and died at 2 months.

Conclusions: *Candida* contamination of PF can induce life-threatening complications. Routine mycological culture of PF, as mentioned by recommendations, should be systematically performed to early implementation of appropriate treatment to limit complications.

¹Botterel F. J Hosp Infect. 2010