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Abstract (poster session)

**Is catheter-related candidaemia a polyclonal infection?**

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**Objectives:** It is unknown whether catheter-related candidemia (CRC) is caused by 1 or multiple genotypes. We studied whether CRC was a polyclonal infection by analysing multiple colonies per tip and blood culture sample. **Methods:** We prospectively studied 18 patients admitted to our hospital (July 2011 to August 2012) with a diagnosis of CRC caused by *Candida albicans* (n=11) or *C. parapsilosis* (n=7) isolated simultaneously from blood and catheter tip cultures. We studied 18 blood cultures and 25 tip cultures. For genotyping, we selected up to 10 colonies per blood sample and the available colonies in the tip culture. A total of 399 isolates were genotyped: 180 from blood cultures and 219 from catheter tip cultures. In 15 cases, the tip was received in the microbiology laboratory a mean of 4.2 days (range, 1-21) after the reception of the blood sample. Genotyping was performed using species-specific microsatellite markers. Catheter and blood genotypes were considered matched when they both showed identical alleles for all the markers studied. **Results:** We found matches between genotypes from the blood cultures and the tip cultures in each patient. In most patients (15/18), a single genotype was found in both the tip and blood cultures. In the remaining 3 patients (*C. albicans* [n=2] and *C. parapsilosis* [n=1]), an additional underrepresented genotype was found only in their catheter tip sample or in the blood sample. In both patients infected by *C. albicans*, 2 different genotypes were found in the tip culture but only 1 of them was found in the blood culture. In contrast, the patient infected by *C. parapsilosis* had 2 different genotypes in the blood culture but only 1 in the catheter tip. **Conclusion:** Most episodes of catheter-related candidemia caused by *C. albicans* and *C. parapsilosis* were not polyclonal. This observation was not affected by the analysis of multiple colonies per sample.