

**P315**

**Virulence potential of *Candida albicans* isolated from oral cavity of patients with chronic renal failure on hemodialysis**

J. S. R. Godoy,<sup>1</sup> B. A. Ratti,<sup>1</sup> P. S. Bonfim-Mendonça,<sup>1</sup>  
F. K. Tobaldini,<sup>2</sup> S. O. S. Lautenschlager<sup>1</sup> and T. I. E. Svidzinski<sup>1</sup>

<sup>1</sup>Universidade Estadual de Maringá, Maringá, Brazil and

<sup>2</sup>Universidade Estadual de Maringá/Universidade do Minho, Maringá, Brazil

**Objective** In patients with chronic renal failure (PCRF), the frequency of colonization of the oral cavity by yeasts of genus *Candida* spp. is high compared with healthy individuals. These yeasts have virulence factors that may contribute to the persistence of colonization and the development of these infections. The aim of this study was evaluate aspects of virulence from *Candida albicans* isolated from oral cavity of PCRF on dialysis.

**Methods** This study was initially conducted with 49 clinical samples of *C. albicans*. The virulence factors assayed were produce of biofilm, germ tube, determination of adherence in oral epithelial cells and evaluation of resistance to the antimicrobial action of neutrophils and mononuclear cells.

**Results** All isolates were highly efficient in forming biofilms on polystyrene microplates, where 94% of the samples formed 4 + biofilm. Used as a screening test, of which three isolates were selected with different degrees of ability to form biofilm to assess other indicators of virulence. Overall, the isolates exhibited different characteristics regarding the virulence factors analyzed. It was also observed that the hypophosphorous acid (HOCl) production, one of leading inflammatory mediators with fungicidal action, also varied especially when the neutrophils, and not mononuclear cells, were stimulated with different samples. (Figure 1).

**Conclusion** Therefore, our results indicate that *C. albicans*, is not only the most common species in the oral cavity of CRFP on dialysis, but also it presents the main virulence attributes, which reinforces the importance of monitoring of these patients towards the prevention of fungal infections.