

## COLONIZATION OR INFECTION; THE CHALLENGES OF MANAGEMENT IN PATIENTS WITH CANDIDURIA

Auler, M. E.<sup>1</sup>, Souza, A.C.<sup>2</sup>, Carioca, G.<sup>1</sup>, Bernardi, E.<sup>1</sup>, Marafon, D.<sup>1</sup>, Da Silva, B.C.M.<sup>3</sup>, Kochman, G.J.<sup>1</sup>, Zanella, G.N.<sup>1</sup>, Paula, C.R.<sup>2</sup>

<sup>1</sup> - Midwestern State University of Paraná – UNICENTRO, Rua Simeão Camargo Varela de Sá, 03, Vila Carli, CEP 85040-080, Guarapuava – PR).

<sup>2</sup> - School of Dentistry, University of São Paulo-USP, Av. Professor Lineu Prestes, No 2227, São Paulo 05508-000, Brazil.

<sup>3</sup> - Laboratory of Medical Investigation in Dermatology And Immunodeficiency (Lim 56), School of Medicine, University of São Paulo-USP, Brazil.

### Resumo

The definition of candiduria is enigmatic. Candiduria is rarely present in healthy individuals. Candiduria is a hospital-associated infection with increasing frequency, although most of these cases have been considered as contamination. Many questions remain regarding the management of candiduria. To date, there are no reliable criteria for distinguishing between colonization and infection. The purpose of this work was to analyze the epidemiological profile of candiduria in urine samples obtained from the patients admitted with symptoms of urinary tract infection in the Hospital Santa Tereza, in Guarapuava/PR. This prospective study was conducted from June 2009 to May 2013. We analyzed the chemical exam urine (glucose, nitrites), Urine Sediment (leukocytes, yeasts). Were analyzed the sensitivity of urine microscopy with culture as well as was determined colony-forming units (CFU/mL). Also we investigate antifungal susceptibility. Quantitative cultures with colony counts of  $\geq 10.000$  UFC/mL of urine was associated with infection. The Ethical Committee n°10923/2009 UNICENTRO was approved. A total of 1.357 patients were analyzed and 104 yeasts isolated (103 patients). The yeasts isolated were identified the according Kurtzman and Fell 2011. For antifungal susceptibility testing we employed the document M27-A3 and M27-S4. The antifungal agents used in this study were amphotericin B and fluconazole. Our data showed that the most frequent species were *Candida albicans* (46.2%), followed by *C. glabrata* (33.7%), *C. tropicalis* (7.7%), *C. guilliermondii* (2.9%), *C. parapsilosis* (1.9%), *Trichosporon asahii* (3.9%), *Trichosporon cutaneum* (1.9%) and *Pichia* spp (1.8%). The culture showed a higher sensitivity (73.8%) when compared with urine microscopy (26.0%). The chemical exam urine not indicated relationship between cases of candiduria. Twenty-six patients (25.2%) showed cultures with colony counts  $\geq 10.000$  UFC/mL and 8 patients (7.7%) with  $\geq 100.000$  UFC/mL. *In vitro* susceptibility testing of *Candida albicans* showed that 93.7% (45) were sensible to fluconazole and resistant 2.1% (01). For *Candida glabrata*, 54.0% (19) were sensible to fluconazole and 28.8% (10) resistant. For amphotericin B only 14.2% (5) of *Candida glabrata* were resistant. All other isolates were susceptible. In conclusion, our data indicate that *C. albicans* remains the predominant infecting species, but confirmed the increasing of non-*albicans* species with considerable percentage of resistance.

**Palavras-chave:** Urinary infection, Candiduria, antifungal

**Agência Fomento:** Fundação Araucária