

**Título: MOLECULAR IDENTIFICATION OF *Candida* SPECIES ISOLATED FROM DIFFERENT ANATOMICAL SITES IN ALAGOAS, BRAZIL**

**Autores** Jacqueline Araújo de Melo<sup>1</sup>, Jorge Belém Oliveira Júnior<sup>1</sup>, Maria Anilda dos Santos Araújo<sup>2</sup>, Eurípedes da Silva Filho<sup>1</sup>, Denise Maria Wanderlei Silva<sup>1</sup> e Fernanda Cristina de Albuquerque Maranhão<sup>1</sup>

**Instituição** <sup>1</sup> UFAL - Universidade Federal de Alagoas (Av. Lourival Melo Mota, s/n, Tabuleiro dos Martins, 57072-900, Maceió - AL), <sup>2</sup> UNIT – Centro Universitário Tiradentes (Av. Comendador Gustavo Paiva, 5017 - Cruz das Almas, Maceió - AL, 57038-000)

**Resumo:**

*Candida* species are opportunistic fungal pathogens of humans that frequently causes superficial mycoses in distinct anatomical sites, mainly in debilitated individuals. The aim of this research was to determine the prevalence of infections by *Candida* species in Maceió/AL (Brazil). During march/2013 to dez/2014 clinical specimens were collected from individuals in three important clinical laboratories and the detection of yeasts was carried out with classic methods after potassium hydroxide (KOH 20%) and lactophenol cotton blue preparation by direct examination in microscope (40x/1000x), where we searched for blastoconidia, hyphae and pseudohyphae structures typical of the yeast. Each sample was placed in Sabouraud Dextrose agar (Difco) and cromogenic agar (Hicrome®, Himedia) media and incubated during 48-72 h (35°C) with daily observation. DNA extraction was performed after suspension of yeast samples in YPD solid medium by phenol/chloroform method and DNA amplification by PCR using species-specific primers (CALB1-TTT ATC AAC TTG TCA CAC CAG AATC e CALB2-CCG CCT TAC CAC TAC CG/ CGL1-TTA TCA CAC GAC TCG ACA CT e CGL2-CCC ACA TAC TGA TAT GGC CTA CAA/ CPA1-GCC AGA GAT TAA ACT AAC CA e CPA2-CCT ATC CAT TAG TTT ATA CTC CGC/ CTR1- CAA TCC TAC CGC CAG AGG TTA T e CTR2-TGG CCA CTA GCA AAA TAA GCG T/ CGU1-GCA TCG ATG AAG AAC GCA GC e CGU2-GTTTGG TTG TTG TAA GGC CGG G/ CKRU1-GCA TCG ATG AAG AAC GCA GC e CKRU2-AAA AGT CTA GTT CGC TCG GGC C). The majority of the 218 samples were vaginal secretion (n= 112), followed by urine (n= 53), nails (n= 23) catheter tip (n= 13), blood (n= 8), tracheal aspirate (n= 3), abdomen secretion (n= 3), wound secretion (n= 2) and cerebrospinal fluid (n= 1). To date 160 strains were amplified, and in only 26 samples the results diverged from the ones obtained by Hicrome. *C. albicans* (74.5%) was the most prevalent specie (124 strains), followed by *C. tropicalis* (19.37%), *C. krusei* (1.87%) and *C. glabrata* (1.25%). This study provides knowledge of current epidemiological status of candidiasis in Alagoas and represents the first report about the prevalence of candidiasis in different clinical specimens using PCR.

**Palavras-chave:** mycoses, *Candida*, molecular epidemiology

**Instituição de fomento:** FAPEAL; CNPq