
EVALUATION OF PHENOTYPIC MARKERS FOR IDENTIFICATION OF *CANDIDA DUBLINIENSIS* FROM CLINICAL ISOLATES PREVIOUSLY IDENTIFIED AS *CANDIDA ALBICANS* USING CONVENTIONAL METHODS

Brito A¹, Mendoza M² Fernández A³

¹JM Vargas Medical School, Faculty of Medicine, Central University of Venezuela (UCV), Caracas, Venezuela.

²Laboratory of Mycology, Institute of Biomedicine, Caracas, Venezuela.

³Laboratory of Molecular Biology, Institute of Biomedicine, Caracas, Venezuela.

Yeasts of the *Candida* species are responsible of 80% of nosocomial fungal infections, and *C. albicans* is the yeast found in the majority of cases of candidosis. Since 1995 a new yeast species is described, *C. dubliniensis* (*Cd*). This species shares with *C. albicans* (*Ca*) some morphological characteristics such as: production of germinal tubes and chlamydospore formation and some authors describe that about 17% of isolates identified as *Ca*, would really be *Cd*. The objective of this study consists in the evaluation of some phenotypic markers that could be of value for discriminating *Cd* from a series of isolates previously identified as *Ca* using conventional techniques for yeast identification. We studied 103 clinical isolates of *Ca* from different health facilities in Caracas, corresponding to children and adults. *Candida albicans* isolates were grown in agar Sabouraud-chloramphenicol plates inoculated by the dissemination technique. Afterwards, we proceeded to grow one colony from each isolate and from these, we performed the following phenotypic tests: Growth in CHROMagar *Candida*, growth at 42°C and sugar assimilation. In CHROMagar *Candida* we registered 89,3% of green colonies, 5,80% blue and 4,9% lilac. When considering the growth temperature, 101 isolates (98,1%) grew and two (2) did not grow (1,9%). When studying carbohydrate assimilation, 96 isolates showed the usual pattern (93,2%) and 7 (6,8%) did not. The species control used were for *Ca* (B-385) and for *Cd* (Cd36). The only difference found was the growth temperature at 42° Celsius for *Ca* and lack of growth of *Cd* at this temperature. We conclude that between 93 and 98% of the group of yeasts evaluated could be *Ca* according to the phenotypic markers studied and we consider that these results should be confirmed by means of genotypic tests.

Key words: *Candida albicans*, *Candida dubliniensis*, growth at 42°Celsius, CHROMagar *Candida*