Title: PHENOTYPIC DIFFERENTIATION OF THE *C. PARAPSILOSIS* COMPLEX AND BETWEEN *C. ALBICANS* AND *C. DUBLINIENSIS*

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Candida albicans and the *C. parapsilosis* complex are the most frequent species in invasive fungal infections. The analysis of the phenotypic characteristics results in a fast and efficient identification of the microorganism, consequently allows the appropriate treatment, which avoids the use of more expensive techniques. This study aimed to evaluate the phenotypic differences of *C. parapsilosis* complex and between *C. albicans* and *C. dubliniensis* on chromogenic agar. From the recent culture on Sabouraud Dextrose agar the isolates *C. parapsilosis sensu stricto* ATCC110, *C. metapsilosis* ATCC111, *C. orthopsilosis* ATCC112, *C. albicans* ATCC 90028 and a clinical sample of *C. dubliniensis* were plated on chromogenic agar plates and incubated at 35°C, followed by growth, color and appearance of the colonies for 72 hours. The intensity of growth and pigmentation of the isolates was evaluated in scores from 0 (absence of pigment) to 4 (intense pigmentation). All the isolates showed abundant growth and creamy colonies. Regarding the pigmentation, *C. albicans* presented a light green colony (score 1), while the colonies of *C. dubliniensis* showed darker green color (score 2) with 24 h of incubation. At 48 h, the *C. albicans* colonies were slightly darker (score 2), the pigmentation of *C. dubliniensis* received score 3. After 72 h of incubation, the difference in color of the colonies of both species was more evident: *C. albicans* continued with score 2 and *C. dubliniensis* with 4 (dark green color). The isolates of *C. parapsilosis* showed no pigmentation in 24 h of incubation. At 48 h, *C. parapsilosis sensu stricto* was purple, but with a clear tint (score 2), *C. metapsilosis*, showed a slightly more intense purple color (score 3) and *C. orthopsilosis* lilac color (score 1). *C. parapsilosis sensu stricto* was classified with score 4 (dark purple), *C. metapsilosis* maintained score 3 and *C. orthopsilosis* presented a more intense lilac color. Thus, these results suggest the possibility of differentiation between isolates of *C. albicans* and *C. dubliniensis* and between isolates of the *C. parapsilosis* complex by the color of the colonies in chromogenic agar, more evident after 48 hours of incubation.

Key words: *C. albicans*, *C. parapsilosis* complex, chromogenic agar, phenotype.

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