

Pathogenic characteristics of yeasts isolated from vaginal secretion preserved under mineral oil in the URM Culture Collection

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Abstract:

Vulvovaginal candidiasis (VVC) is the second most frequent cause of vaginal infection, having high incidence and recurrence, which requires longer treatments. The genus *Candida*, specially the species *C. albicans*, is the most common agent. However, other species, more difficult to eradicate, may also be involved. The yeasts, especially the candidoses, are assuming a role of great importance in the human pathology. The female genital tract may be affected by infectious and inflammatory processes, which are diagnosed by examination of vaginal secretion. Several species of yeasts have been isolated from the vulva and vagina in normal cases and vulvovaginitis. In order to evaluate the pathogenicity of yeasts isolated from vaginal secretion, 30 samples of yeast belonging to the genera *Candida*, *Rhodotorula*, *Trichosporon* and *Kloeckera*, isolated from vaginal secretions from pregnant and non-pregnant women attended at the gynecology ambulatory from Manuel Caldas de Araújo Health Center, Paulista-PE, were studied for their pathogenic characteristics, ability to grow at room temperature ($TA = 28^{\circ}\text{C} \pm 1^{\circ}\text{C}$), 37°C and 42°C for 72 hours, and production of both phospholipase and proteinase. All cultures are deposited in mycology collection - URM, Department of Mycology, Federal University of Pernambuco and were subjected to taxonomic confirmation according to the traditional criteria which are based on morphological and physiological evidence. The results showed that all 30 isolates (100%) were able to grow at room temperature ($TA = 28^{\circ}\text{C} \pm 1^{\circ}\text{C}$) and at 37°C , and that 17 samples (57%) were able to grow at 42°C . The evaluation of enzymatic activity showed that protease activity was observed in two isolates only (7%) *C. maritima* and *C. obtuse*. Phospholipase activity was detected in 20 isolates (67%), using soy lecithin as substrate at different temperatures. The characterization of yeasts isolated from vaginal secretion, as well as the determination of its enzymatic activity, may contribute to the understanding of the epidemiology of vulvovaginitis and assist in the treatment of patients.

Key words: Pathogenic, Characteristics, yeasts, vaginal secretion, URM Culture Collection