

## Characterization of *Candida* Isolates from South African Pregnant and Non-Pregnant Women

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### ABSTRACT

*Candida* infections are a serious health threat to women. Over the years increased drug resistance pattern has been observed, characterization of *candida* isolates has become the gold standard method used in determining antifungal susceptibility profiles and resistance mechanisms in vaginal *Candida* infection, However, there is a lack of data on the antifungal susceptibility profiles of South African *Candida* isolates to amphotericin B. The current study aims to fill this gap. A total of 72 *Candida* isolates obtained from Self-collected vaginal swabs were obtained by culture. The isolates were typed using the ABC genotyping method. Susceptibility testing was performed using the broth microdilution assay to measure the minimal inhibitory concentrations (MICs) for clinical isolates to amphotericin B. Statistical analysis were conducted using STATA where P-values  $\leq 0.05$  were considered significant. The majority of the isolates yielded genotype A followed by Genotype B and C with prevalence of 62.5%, 26.4% and 11.11% respectively. Of the 72 isolates tested, 79.2% of the isolates were resistant to amphotericin B and 20.8% of the isolates were susceptible to amphotericin B. Factors associated with vaginal *candida* infections were age and pregnancy in which the P-values were 0.019 and 0.000 respectively. The current study had high level of resistance to the antifungal amphotericin B. There is a need for antifungal resistance monitoring.

**Keywords:** Vaginal *candida* infections, Antifungal susceptibility, ABC genotyping, Resistance mechanism

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