

## ABSTRACT

**Background:** Vulvovaginal candidiasis (VVC) is a disease with inflammation of vulva and vagina that caused by *Candida sp.* *Candida albicans* was the predominant cause of candidiasis. However, a shift toward non-*albicans Candida* (NAC) species has been recently observed. These non-*albicans Candida* species demonstrated reduced susceptibility to commonly used antifungal drugs. Identification of the infecting *Candida* to the species level is of utmost importance for prediction of likely drug susceptibility and to guide treatment.

**Purpose:** To evaluate profile of *Candida sp* that cause VVC to the species level.

**Methods:** This is a cross-sectional descriptive study that evaluating VVC patients that fulfilled inclusion criteria by checking clinical examination and evaluate flour albus using Vitek 2 and conventional methods (*CHROMAgar*, *cornmeal agar* and carbohydrate fermentation test).

**Results:** There were 25 VVC patients in this research. There were positive and negative results of microscopic examination. Result of species identification were *Candida sp* 100% in Vitek 2 same as in conventional methods. The highest number species were on 14 samples (*Candida albicans*).

**Conclusion:** Conventional methods can be used for identifying to the species level but laborious and time-consuming. According to the results found in the present study, the Vitek 2 system identifies most clinically important *Candida sp* reliably within 18 hours, and appears to be an excellent alternative identification method for performing fungal diagnostics. The result showed the most common yeast causing VVC was *Candida albicans* (56%), but there were increasing of NAC that cause VVC. Most NAC are usually cause antifungal resistance. It is therefore important that there should be increased awareness among physicians on the rising prevalence of NAC, due to the reduced susceptibility to azoles. Prior identification to the species level on VVC is essential to ensure early diagnosis of NAC infection and in order to give proper treatment.

**Key words:** vulvovaginal candidiasis (VVC), Vitek 2, conventional methods, *Candida sp.*