

# **Vulvovaginal candidiasis during pregnancy - single centre experience**

Aleksandar Jurišić

Žaklina Jurišić

Valentina Arsić Arsenijević

Dejan Dinić

# The aim

- The aim of this study was to determine frequency of different *Candida* species and their susceptibility profile among pregnant women.

# Methods

- During four-month period (February–May 2015), swabs samples of vaginal discharge were taken from 34 pregnant women.
- Mycological investigation was done in National Reference Medical Mycology Laboratory.
- Vaginal swabs cultured on triple agar media containing: Sabouraud's dextrose agar (HiMedia, India), HiChrom Candida Differential agar (HiMedia, India) and Blood agar (Institute of Virology, Vaccines and Sera Torlak, Serbia).

# Methods

- Isolates were identified by color of the colonies according to manufacturer's instructions.
- Antifungal susceptibility of the *Candida* isolates was determined by disk diffusion test against butoconazole (Richter Gedeon Nyrt., Hungary) and additionally against fluconazole, miconazole, clotrimazole and nystatin (all from Bio-Rad, France).
- Demographic and epidemiological data were collected. Descriptive statistics and Chi-square test were used to analyze the data.

# Results

- Vaginal swab cultures were taken from 34 pregnant women (mean age  $31.94 \pm 3.46$ , range 24-38 years) that participated in the study,
- 11 (32.35%) swab cultures yielded *Candida* spp. and 1 (2.94%) yielded *Saccharomyces cerevisiae*.
- Among 12 (35.29%) isolates the species distribution was as follows:
  - *C. albicans* (n=10/12, 83.33%),
  - *C. tropicalis* (n=1/12, 8.33%),
  - *S. cerevisiae* (n=1/12, 8.33%).

# Species antimycotic resistance

- Majority of strains have been shown to be susceptible to butoconazole (10/12, 83.33%),
- Only 2/12 (16.67%) being susceptible dose-dependent.
- Among *C. albicans* strains, high rate of susceptible dose-dependent (7/12, 58.33%) to other azoles was observed.

# Results

- All strains were susceptible to nystatin (12/12, 100%).
- Resistant *C. albicans* strains were not detected.
- Based on epidemiological data, symptoms of vaginal discharge and risk factors associated with VVC were not statistically significant between Candida-positive and Candida-negative pregnant women due to small size of investigated group.

# Conclusion

- *C. albicans* was the most common cause of VVC in pregnant women and showed high susceptibility rate to azoles, especially to butoconazole.
- Larger controlled study is required to determine the efficiency of butoconazole in nonalbicans species and its usefulness in VVC therapy of pregnant women.