

**TITLE:** FREQUENCY OF MICROORGANISMS IN VAGINAL DISCHARGES OF WOMEN EXPERIENCING HIGH-RISK PREGNANCIES

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**ABSTRACT:** During pregnancy, estrogen and progesterone levels induce changes in the lower genital tract of women, which may favor vaginal infection or colonization by pathogenic microorganisms that can be associated with obstetric complications and neonatal infections. These pathogens include *Candida* spp., *Trichomonas vaginalis*, *Gardnerella vaginalis* and Group B Streptococcus (*Streptococcus agalactiae*). This study aimed to determine the frequency of such microorganisms amongst women in high-risk prenatal care, admitted to a high-risk reference hospital in Caruaru, State of Pernambuco (Brazil). This regards an analytical, cross-sectional study in which samples of vaginal discharge were collected from women experiencing high-risk pregnancies, without restriction of age or gestational period. Pregnant women affected by any clinical condition that precluded sample collection were excluded, as well as those who did not agree to participate in the study. The samples were obtained, with the aid of sterile swabs, and submitted to Gram stained direct smear, as well as to fresh wet mount examination and to cultures in Sabouraud agar and Blood agar. CAMP test was performed in order to identify *S. agalactiae*. Socio-demographic and clinical-obstetric data were collected by means of a questionnaire. A total of 92 patients were selected for sampling, that was carried out from May to December 2018. It was found that the frequency of *Candida* spp. was 31.52%. Concerning *Gardnerella vaginalis*, the frequency was 1.25%. The rate of colonization by Group B Streptococcus was 3.23%. No cases of *Trichomonas vaginalis* were found in this study. Statistical analysis was performed seeking an association between the presence of *Candida* and other conditions, such as gestational period, diabetes, preterm birth or previous abortions, vaginal discharge, pruritus, and dyspareunia. However, none of the variables displayed statistically significant associations. The frequency of *Candida* that was found in this study corroborates with the literature, as it is a common infection during pregnancy due to the increase of hormones. However, the frequencies of colonization by *G. vaginalis*, *T. vaginalis* and *S. agalactiae* were lower than those found in other studies. Due to the risks that these microorganisms can bring to a pregnant woman and a fetus, health professionals should be alert to signs and symptoms, requesting the screening of these pathogens, as well as treating gestating women when necessary.

**Keywords:** Pregnancy; *Candida*; *Gardnerella vaginalis*; *Streptococcus agalactiae*.