

## A comparison of vaginal biocoenosis examination with exfoliative cervical cytology

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### ABSTRACT

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**Introduction:** Gynecologists have been increasingly frequently switching from vaginal biocoenosis assessment towards cervical cytology results to obtain information on infection type. Exfoliative cervical cytology is a screening test for dysplastic intraepithelial lesions and ectocervical cancers. One should emphasize, however, that one of the four parts of the new Bethesda classification specifies such inflammatory lesions as: *Trichomonas vaginalis*, *Candida*, *Actinomyces*, *Chlamydia*, cellular changes consistent with HSV infection, and changes in bacterial flora. Gynecologists, however, can perform vaginal biocoenosis assessment individually and diagnose its abnormalities in a relatively short timeframe.

**Purpose:** To analyse associations between lesions revealed during vaginal biocoenosis assessment in correlation to lesions described in studies dedicated to cytological assessments of ectocervical smear.

**Materials and methods:** The study group included 1991 female patients scheduled for follow-up

cytological screening in a gynecological office. Patients underwent gynecological examination covering external areas, colposcopy, vaginal pH measurement, sampling for vaginal biocoenosis assessment purposes, and cytological sampling.

**Results:** It was demonstrated that diagnostic conformity for *Candida sp* accounted for only 17.2%, changes of bacterial flora for only 4%, and in the case of *Trichomonas vaginalis* for only 3.9%. According to our observations, bacterial infections and candidiases were more frequently diagnosed during vaginal biocoenosis examinations comparing with cytological screening; whereas, *Trichomonas vaginalis* infections were more frequently diagnosed in cytological screening.

**Conclusions:** Lack of 100% correlation between the vaginal biocoenosis test and cytological results according to the Bethesda system means that assessment of vaginal microflora in phase-contrast microscopy should not be abandoned.

**Keywords:** Bacterial infections, *Candida sp*, cervical cytology, *Trichomonas vaginalis*, vaginal biocoenosis