

Microbial picture of the vagina

Vaginal microbiological examination (MPV) is one of the ways of determining a number of sexually transmitted diseases. Secretion is collected with a sterile cotton swab using speculums from the mucous membrane of vagina and from cervix. The material is transferred to two glass slides and stained according to:

1. Gram – diagnostics of bacteria and yeast;
2. Giemsa – diagnosis of the presence of trichomonads.

MOP	Evaluation	Discharge	Microscopic image	Note
MOP I	MOP of healthy women	No discharge	<ul style="list-style-type: none">▪ Predominance of epithelia and lactobacillus	It can be demonstrated only in a part of clinically completely healthy women
MOP II	Non-purulent microbial discharge-bacterial vaginosis	Milky cloudy, sometimes yellowish; variously thick and viscous consistency	<ul style="list-style-type: none">▪ No or minimal leukocytes▪ The amount of bacteria (most commonly <i>Gardnerella vaginalis</i>)▪ Lactobacilli are completely absent or only sporadic	The presence of so-called " clue cells - " epithelial cells of the vaginal mucosa, to which a number of different bacteria adhere
MOP III	Purulent bacterial discharge	Thick whitish to yellowish discharge	<ul style="list-style-type: none">▪ A large number of polymorphonuclears▪ A large number of different bacteria▪ Lactobacilli are usually absent▪ Relatively few epithelia	Pyogenic bacteria are mostly responsible - coliform rods, streptococci, staphylococci, enterococci, ...
MOP IV	Acute or chronic gonorrhoea	Thick yellow-white to yellow-green discharge	<ul style="list-style-type: none">▪ Acute stage - almost exclusively leukocytes with intra- and extraleukocyte-localized G-diplococci that look like a coffee bean▪ Chronic stage - also admixture of other bacteria and a small amount of epithelia, the predominance of leukocytes is not as pronounced as in the acute phase	Evaluation of the finding is difficult, the final diagnosis is based on repeated culture or PCR examination.
MOP V	Trichomoniasis (<i>Trichomonas vaginalis</i>)	Thin, white, often foamy	<ul style="list-style-type: none">▪ <i>Trichomonas vaginalis</i>▪ Epithelia, leukocytes▪ Also lactobacilli and a mixture of different bacteria	Stained according to Giemsa - Trichomonad cells often disintegrate, only violet-red nuclei can be observed (usually pointed in one place) surrounded by remnants of bluish cytoplasm
MOP VI	Vaginal candidosis	Various thick whitish discharge	<ul style="list-style-type: none">▪ Yeast (saprophytic and parasitic phase)▪ Leukocytes may or may not be present▪ Lactobacilli and other bacteria	Overgrowth due to hormonal fluctuations, weakened immunity (AIDS), antibiotic treatment, diabetes, etc.

Links

Related Articles

- Sexually transmitted diseases
- Vulvovaginitis

References

- ONDROVČÍK, Petr – VOTAVA, Miroslav. *Selected chapters in clinical microbiology*. 1. edition. Masarykova univerzita v Brně, 1998. 90 pp. ISBN 80-210-1805-4.