

# 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"><li>▪ Predominance of epithelia and lactobacillus</li></ul>	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"><li>▪ No or minimal leukocytes</li><li>▪ The amount of bacteria (most commonly <i>Gardnerella vaginalis</i>)</li><li>▪ Lactobacilli are completely absent or only sporadic</li></ul>	The presence of so-called " <b>clue cells</b> " - 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"><li>▪ A large number of polymorphonuclears</li><li>▪ A large number of different bacteria</li><li>▪ Lactobacilli are usually absent</li><li>▪ Relatively few epithelia</li></ul>	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"><li>▪ <b>Acute stage</b> - almost exclusively leukocytes with intra- and extraleukocyte-localized G-diplococci that look like a coffee bean</li><li>▪ <b>Chronic stage</b> - also admixture of other bacteria and a small amount of epithelia, the predominance of leukocytes is not as pronounced as in the acute phase</li></ul>	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"><li>▪ <i>Trichomonas vaginalis</i></li><li>▪ Epithelia, leukocytes</li><li>▪ Also lactobacilli and a mixture of different bacteria</li></ul>	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"><li>▪ Yeast (saprophytic and parasitic phase)</li><li>▪ Leukocytes may or may not be present</li><li>▪ Lactobacilli and other bacteria</li></ul>	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.