
















UGGS

Micro L5

CANDIDIASIS vs TRICHOMONIASIS

Feature	CANDIDIASIS	TRICHOMONIASIS
 Organism	Fungus (yeast) Most commonly <i>Candida albicans</i>	Protozoan <i>Trichomonas vaginalis</i>
 Transmission	Usually endogenous overgrowth (not a typical STI)	Sexually transmitted infection (STI)
 Affected sites	Vagina, vulva, mouth, skin folds, GI tract, urinary tract	Vagina, cervix, urethra (women); urethra, prostate (men)
 Common in	Antibiotic use, diabetes, pregnancy, immunosuppression	Sexually active individuals with risk factors (multiple partners, unprotected sex)
 Vaginal discharge	Thick, white, "cottage cheese"-like, usually scant to moderate	Frothy, greenish-yellow, often copious
 Odor	Usually odorless	Foul-smelling
 Vaginal pH	Normal (4.0–4.5)	Elevated (>4.5)
 Symptoms	<ul style="list-style-type: none"> • Intense pruritus • Vulvar erythema & edema • Dysuria, dyspareunia 	<ul style="list-style-type: none"> • Pruritus • Dysuria, frequency • Dyspareunia, postcoital bleeding
 Key sign	Erythema, edema, thick white discharge	"Strawberry cervix" (capillary hemorrhages on cervix)
 Microscopy	Budding yeast, pseudohyphae, hyphae (KOH wet mount)	Motile, pear-shaped, flagellated trophozoites (wet mount)
 Gold standard test	KOH wet mount (Culture supportive; Germ tube test positive in <i>C. albicans</i>)	NAAT (Nucleic Acid Amplification Test) (Highest sensitivity & specificity)
 Treatment	Fluconazole (oral single dose) or topical azoles (clotrimazole, miconazole)	Metronidazole or Tinidazole (see dosing below)
 Treat partners	Not necessary (not an STI)	Yes, treat all sexual partners (even if asymptomatic)
 Other manifestations	Intertrigo (beefy red rash in folds) Balanitis (in uncircumcised men)	Urethritis, cervicitis, prostatitis, epididymitis (rare)
 Treatment regimens	<ul style="list-style-type: none"> – Fluconazole 150 mg orally single dose – Topical azoles for 1–7 days 	Women: Metronidazole 500 mg orally twice daily for 7 days OR Tinidazole 2 g single dose Men: Metronidazole 2 g single dose OR Tinidazole 2 g single dose



QUICK MEMORY:

Candida → White, Itchy, Normal pH, Pseudohyphae, Fluconazole

Trichomonas → Green, Frothy, Smelly, Strawberry cervix, Motile flagella, Metronidazole

Micro :

→ Candidiasis and Trichomoniasis ←

* Candida can develop as :

- ① Budding yeasts
- ② Pseudohyphae " filament-like structures, resulting from elongation of budding yeast with constrictions "
- ③ Hyphae " filamentous structures separated by septae " No constrictions "

Vulvovaginal candidiasis :

→ Yeast infection * vulvar and vaginal infection

* Most commonly *Candida Albicans*.

→ Symptomatic infection develops when pseudohyphae invade the vaginal epithelium

Leading to inflammation

Risk factors :

- ① Antibiotic use
- ② High Estrogen Levels
- ③ Diabetes mellitus
- ④ Immunosuppression.

Clinical presentation :

- ① Vulvovaginal pruritus
- ② Vaginal discharge " Thick, white, cottage cheese-like discharge, odorless "
- ③ Vulvovaginal inflammation

* Vaginal pH : 4.0 - 4.5 .

* *Candida albicans* :

→ Germ tube test : Incubating the sample in human serum at 37°C for 2-3 hrs , Leads to formation of True hyphae projections from the yeast with No constrictions " Budding yeast "

⇒ positive germ tube → *C. albicans*

Treatment : fluconazole

Trichomonas vaginalis :

- Sexually transmitted infection (STI)

- Motile flagellated protozoan .

* Risk factors : ① High-risk sexual behaviors

② History of other STIs

③ unprotected sexual intercourse

④ Multiple sexual partners.

* Clinical presentation :

- Malodorous , frothy , Greenish-yellow vaginal discharge

Diagnosis and Laboratory evaluation :







* Nucleic acid amplification test (NAAT) " PCR test "

↳ The gold standard method

⇒ Diagnosis made by wet mount saline microscopy ⇒ Motile, ovoid, **Flagellated** organisms

Treatment : Metronidazole # .

Differential diagnosis of vaginitis

Bacterial vaginosis (<i>Gardnerella vaginalis</i>)	Trichomoniasis (<i>Trichomonas vaginalis</i>)	Candida vaginitis (<i>Candida albicans</i>)
 <ul style="list-style-type: none"> • Thin, off-white discharge with fishy odor • No inflammation 	 <ul style="list-style-type: none"> • Thin, yellow-green, malodorous, frothy discharge • Vaginal inflammation 	 <ul style="list-style-type: none"> • Thick, cottage cheese discharge • Vaginal inflammation
 <ul style="list-style-type: none"> • pH >4.5 • Clue cells • Positive whiff test (amine odor with KOH) 	 <ul style="list-style-type: none"> • pH >4.5 • Motile trichomonads 	 <ul style="list-style-type: none"> • Normal pH (3.8-4.5) • Pseudohyphae
Metronidazole or clindamycin	Metronidazole; treat sexual partner	Fluconazole

Q1

Which *Candida* morphology is characterized by elongated budding cells with constrictions between them?

- A) True hyphae
- B) Arthrospores
- C) Pseudohyphae
- D) Chlamydospores

Q2

A positive germ tube test is diagnostic for:

- A) *Candida glabrata*
- B) *Candida tropicalis*
- C) *Candida albicans*
- D) *Trichomonas vaginalis*

Q3

A 28-year-old woman presents with intense vulvovaginal itching and thick white odorless discharge. Vaginal pH is 4.2. The most likely diagnosis is:

- A) Bacterial vaginosis
- B) Trichomoniasis
- C) Vulvovaginal candidiasis
- D) Gonorrhea

Q4

Which of the following is a major risk factor for vulvovaginal candidiasis?

- A) Low estrogen state
- B) Recent antibiotic use
- C) Circumcision
- D) Low glucose levels

Q5

On wet mount microscopy, *Trichomonas vaginalis* appears as:

- A) Budding yeast with pseudohyphae
- B) Encapsulated budding yeast
- C) Motile pear-shaped flagellated trophozoites
- D) Septate branching hyphae

Q6

The gold standard diagnostic test for trichomoniasis is:

- A) Gram stain
- B) KOH preparation
- C) Germ tube test
- D) Nucleic acid amplification test (NAAT)

Q7

A woman presents with malodorous frothy green-yellow vaginal discharge and punctate cervical hemorrhages. This classic cervical finding is called:

- A) Red currant cervix
- B) Strawberry cervix
- C) Beefy cervix
- D) Friable cervix

Q8

Which treatment is most appropriate for uncomplicated vulvovaginal candidiasis?

- A) Metronidazole
- B) Tinidazole
- C) Fluconazole
- D) Azithromycin

Q9

Which statement about trichomoniasis treatment is correct?

- A) Only symptomatic patients are treated

Q9

Which statement about trichomoniasis treatment is correct?

- A) Only symptomatic patients are treated
- B) Sexual partners should also be treated
- C) Fluconazole is first-line treatment
- D) Treatment is unnecessary in men

Q10

Which feature best distinguishes Candida infection from Trichomoniasis?

- A) Presence of pruritus
- B) Vaginal discharge
- C) Normal vaginal pH
- D) Dysuria

Answer

- | | |
|-----|------|
| 1-C | 6-D |
| 2-C | 7-B |
| 3-C | 8-C |
| 4-B | 9-B |
| 5-C | 10-C |

