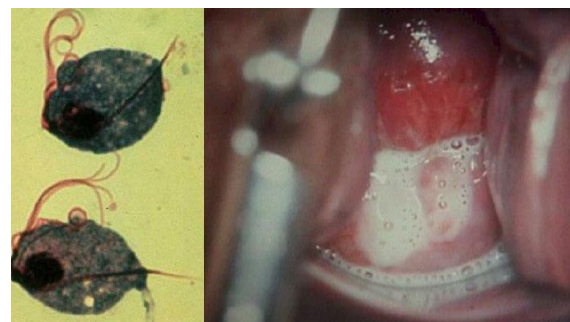




- **Vaginal discharge can be:**
 - **Normal (defined as leukorrhea):** it has no bad odor, color is white and there are no symptoms (such as pruritis).
 - **Abnormal (pathological):** can be blood-stained, white-cream, yellowish or greenish discharge (depending on the microorganism which is causing the infection); foul smell (bad odor); and usually associated with symptoms.
- **What is the difference between physiological and pathological vaginal discharge:**
 - **Physiological:** during pregnancy, vaginal discharge comes from Bartholin and Skene's glands.
 - **Pathological vaginal discharge is further classified to:**
 - ✓ **Infective:** caused by Sexually Transmitted Diseases (STDs) in addition to Trichomonas vaginalis, Candida and Bacterial vaginosis.
 - ✓ **Non-infective:** foreign bodies, poor hygiene, immunocompromised patient, cervical polyp, fistula or allergic reactions.
- **Normal vaginal flora include mainly lactobacilli and anaerobes → these normal flora can be disrupted by:**
 - Antibiotics.
 - Stress.
 - Obesity.
 - Sexual trauma.
 - Immunocompression
- **What is your management for a patient who presents to your clinic complaining of vaginal discharge?**
 - **History:**
 - ✓ Age, onset and duration.
 - ✓ Color and type of discharge.
 - ✓ Does it have a specific smell.
 - ✓ Are there any associated symptoms with it (such as pruritis).
 - **Physical examination:**
 - ✓ Inspection of the vulva.
 - ✓ Speculum examination.
 - ✓ Check the following regarding the discharge: amount, consistency, characteristic and odor.
 - ✓ Bimanual vaginal examination.
 - **Investigation:**
 - ✓ Wet preparation.
 - ✓ Check the pH (vagina is normally acidic).
 - ✓ Potassium hydroxide test (KOH).
 - ✓ High vaginal swab.
 - ✓ Pap smear.
 - ✓ Take a biopsy from the suspicious area (if needed).
- **Trichomonas vaginalis:**
 - It is a flagellated protozoan parasite causing the most widespread sexually transmitted disease.
 - It causes the following in females: abdominal pain, itching, foul-smelling, frothy and profuse discharge with abundant leukocytes.





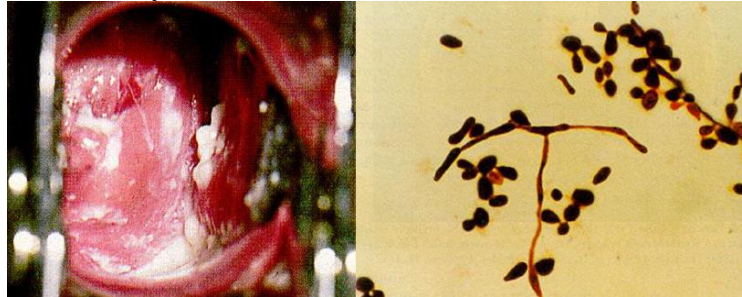
- **Investigations show:**
 - ✓ Alkaline pH.
 - ✓ Strawberry-appearance of the cervix.



- **Treatment:**
 - ✓ Notice that the husband (sexual partner) must be treated if his wife is infected.
 - ✓ Treat with metronidazole (flagyl).

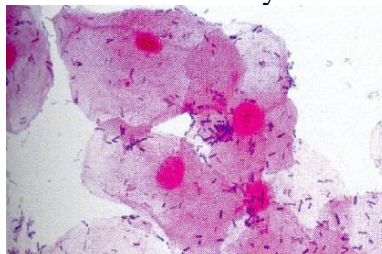
- **Candida albicans:**

- It is not a Sexually Transmitted Disease (STD).
- Therefore, it doesn't require treatment of the husband (sexual partner).
- It is a yeast which commonly occurs in immunocompromised patients causing itching, dryness and thick cottage-cheese appearing vaginal discharge.
- **Investigations:**
 - ✓ Normal pH.
 - ✓ Negative whiff test.
- **Treatment:**
 - ✓ Nystatin (topical).
 - ✓ fluconazole (orally).

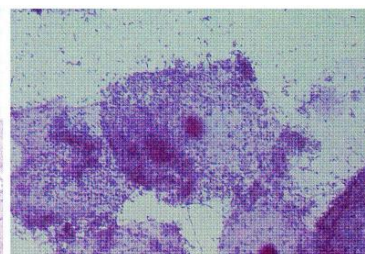


- **Bacterial vaginosis:**

- It is not a sexually transmitted disease (STD).
- It is caused when normal flora (lactobacilli) disappears and it is replaced by Gardnerella vaginalis.
- **In a pregnant lady it can cause:** PROM → chorioaminitis → and subsequent pre-term delivery.
- **Criteria for diagnosing bacterial vaginosis:**
 - ✓ Alkaline pH > 4.5
 - ✓ Thin watery discharge.
 - ✓ Presence of clue cells with gram staining.
 - ✓ Fishy odor after KOH.
- **Treatment:**
 - ✓ Metronidazole or clindamycin.



Predominance of lactobacilli in Gram stain from healthy vagina



"Clue cells" in vaginal discharge, suggestive of bacterial vaginosis (BV).