



- STDs are considered to be a hidden epidemic (especially in our region).

- Pubic lice:

- **The scientific name is:** Pubis phthirus.
- **Its behavior is different than body/hair lice** → it stays and sucks blood from one place instead of moving around that is why it is easier to remove it.



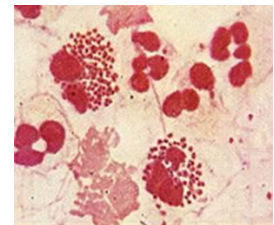
- Important sexually transmitted pathogens:

- **Bacteria:**
 - ✓ Treponema pallidum: syphilis.
 - ✓ Neisseria gonorrhoea: gonorrhoea.
- **Viruses:**
 - ✓ HIV.
 - ✓ Hepatitis-B Virus (HBV).
 - ✓ Herpes Simplex Virus (HSV).
- **Fungi:**
 - ✓ Candida.
- **Protozoa:**
 - ✓ Trichomonas vaginalis.
- **Arthropod (مفصليات الأرجل):**
 - ✓ Sarcoptes scabiei.

- Gonococcal infection:

- **How to diagnose it? specimen collection through swabs and then sent for:**

- ✓ Gram staining: gram (-) intracellular diplococci.
- ✓ Culture: chocolate blood agar.
- ✓ PCR.
- ✓ Antibiotic-sensitivity test.



- **Gonorrhoea causes:**

- ✓ Males: dysuria and urethral discharge.
- ✓ Females: vaginal discharge (↑ risk of PID and infertility).

Notice that the discharge is thick, yellowish-greenish, purulent and abundant.

- **Management of gonorrhoea:**

- ✓ Cephalosporin regimen → if there is no tolerance to this regimen → 2g spectinomycin (IM).
- ✓ Notice that no quinolone or tetracycline regimens are applied.

- **Epidemiology of gonococcal infection in Kingdom of Bahrain:**

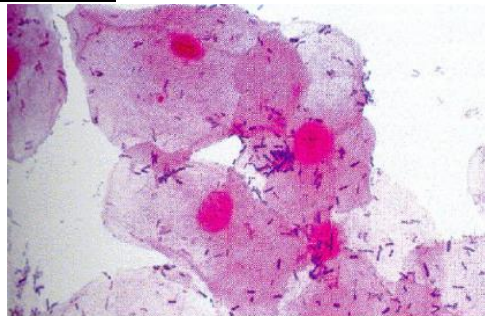
- ✓ More in Bahrainis more than non-Bahrainis (why?) → because most of non-Bahrainis are workers who are screened before being allowed to enter the country (this explains why there is a lower incidence among them).
- ✓ Generally, gonococcal infection is more between 20-40 years of age (why?) → because they are sexually active.



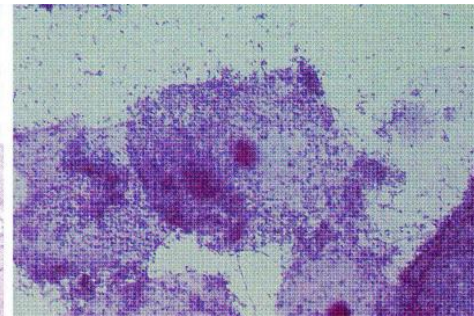
- **Notice that not all gynecological infections are STDs! A good example is:**

• **Bacterial vaginosis:**

- ✓ Cause: unknown! but there is disappearance of lactobacilli (which normally maintains the acidity of the vagina) and increase in anaerobes (*Gardnerella vaginalis*).
- ✓ Criteria for bacterial vaginosis discharge:
 - ❖ Discharge is watery and thin.
 - ❖ Positive “Whiff” test.
 - ❖ Presence of clue cells.
 - ❖ ↑ pH > 4.5
- ✓ Treatment: metronidazole.



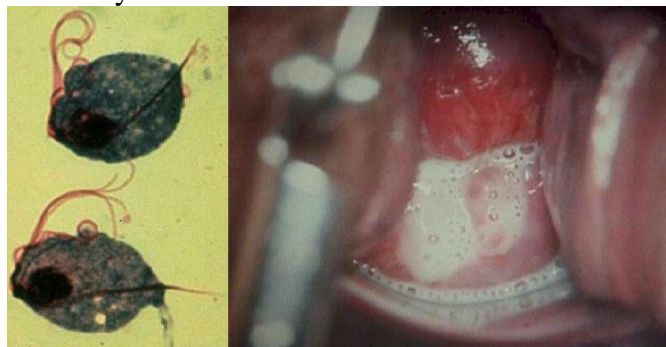
Predominance of lactobacilli in Gram stain from healthy vagina



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

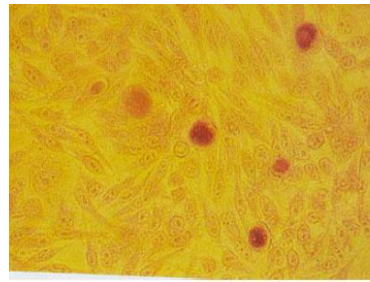
- **Trichomonas vaginalis:**

- **It is a flagellated protozoan parasite responsible for trichomoniasis.**
- **It causes:**
 - ✓ Males: mostly asymptomatic.
 - ✓ Females: abdominal pain, itching and presence of foul-smelling discharge with abundant leukocytes.



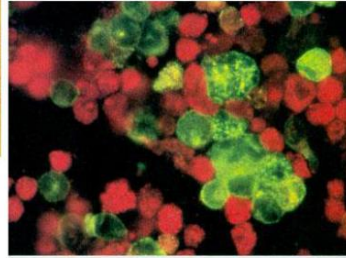
- **Chlamydia trachomatis:**

- **It is an obligate intracellular parasite:** elementary body adapted for extracellular survival and reticulate body adapted for intracellular multiplication).
- **Serotypes:** D-K (causing what is known as non-gonococcal urethritis).
- **It is sexually transmitted or during childbirth (resulting in conjunctivitis or pneumonitis in infants).**
- **It causes:**
 - ✓ Males: urethritis, epididymitis and proctitis.
 - ✓ Females: usually asymptomatic but can cause urethritis, cervicitis and salpingitis.
- **The discharge is:** mucoid, scarce and usually present in the morning.
- **Diagnosis:**
 - ✓ Culture.
 - ✓ Direct immunofluorescence.
 - ✓ Nucleic acid amplification test.



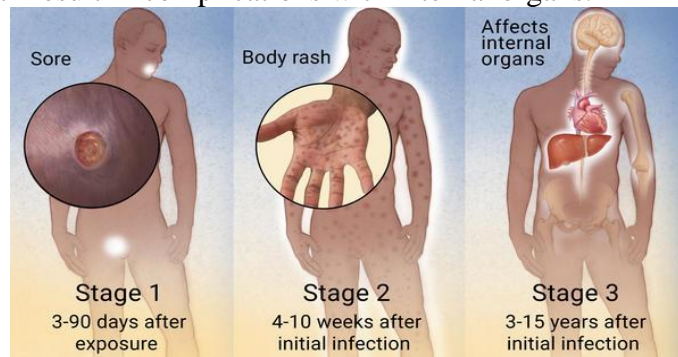
Iodine-stained inclusion in MacCoy cell monolayer infected with *Chlamydia trachomatis*.

Fluorescent-antibody-stained inclusion in MacCoy cell monolayer infected with *Chlamydia trachomatis*.



- Treponema pallidum:

- Spiral bacteria appearing in dark-field microscopy and responsible for the disease (syphilis).
- Stages of syphilis infection:
 - ✓ Stage-I: is characterized by chancre (painless ulcers).
 - ✓ Stage-II: is characterized by body rash.
 - ✓ Stage-III: can result in complications with internal organs.



- It can be transmitted from the mother to the fetus via transplacental infection. Congenital syphilis is characterized by:
 - ✓ Microcephaly.
 - ✓ Hemorrhage.
 - ✓ Rash.
 - ✓ Hepatosplenomegaly.
- Diagnosis:
 - ✓ Serologic tests.
 - ✓ ELISA.

- Genital herpes:

- Resulting in painful ulcers (chancroid).
- Types 6 and 11 cause mucocutaneous lesions (including warts) and they are not associated with increased risk of cervical cancer (in contrast to types 16 and 18).