

Prof.Dr.Hashim Raheem Tarish

Fourth Lecture

2- Uro-genital flagellates

Trichomonas

1- T. vaginalis

2- T.hominis

3- T.tenax

Differ in

1- Morphology

2- location

3- route of infection

4- diagnostic sample

Trichomoniasis is a parasitic protozoan infection (STI) caused by a parasites called Trichomona.

Trichomoniasis three types due to species

1- Intestinal trichomoniasis

2- Oral Trichomoniasis

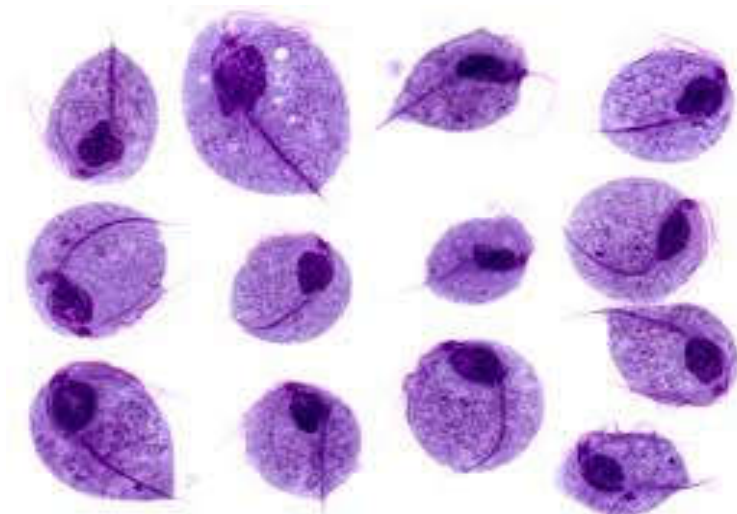
3- Vaginal Trichomoniasis

Trichomonas vaginalis, a parasitic protozoan infects the urogenital tract of both women and men worldwide. Trichomoniasis, is the sexually transmitted infection with the largest annual incidence, exceeding 170 million cases per year.

Trichomonas vaginalis

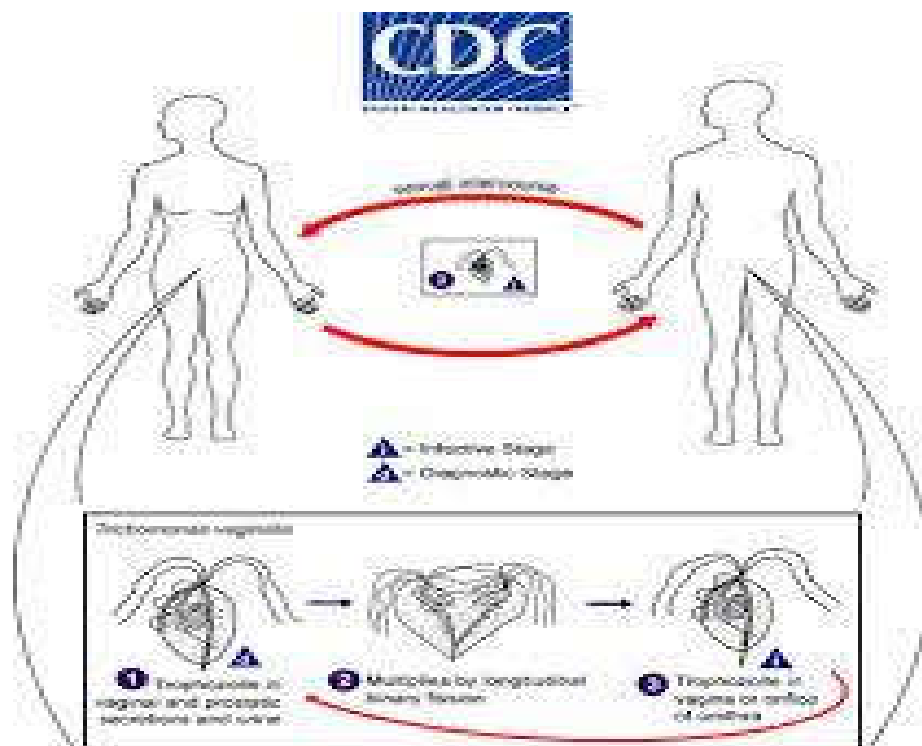
Morphology

Trophozoite only





life cycle



Clinical presentation

The appropriate use of diagnostic testing is dependent on appropriate specimen collection. However, specimens are only taken when a diagnosis is considered. The classic presentation of *T vaginalis* is that of a purulent, foul-smelling vaginal discharge which is associated with pruritis, dysuria .The discharge usually exceeds pH 6.0, and a '**strawberry**' cervix, which is characterized by punctuate hemorrhagic lesions . These classic symptoms are only seen 20% of the time . which often leads to women with these vaginal symptoms being empirically treated for yeast infections or bacterial vaginosis. The majority of men who have had sexual contact with a woman with *T vaginalis* will be completely asymptomatic or only have mild dysuria even though the organism can be found on culture.

diagnosis of **Trichomoniasis**.

1-clinical diagnosis

2- The laboratory diagnosis of *Trichomonas vaginalis*

The diagnosis of trichomoniasis has traditionally depended on the microscopic observation of motile protozoa from vaginal or cervical samples and from urethral or prostatic secretions.

1-Microscopic examination

2- Culture

Broth culture technique has been the gold standard for *T vaginalis* for the past 40 years. The inoculum size required is only in the range of 10² organisms/mL and the growth of the organism is easy to interpret. The standard broth is **Diamond's TYI medium** in glass tubes . Incubation periods ranging from **two to seven days** are required to identify *T vaginalis* in culture.

3-Cultivation on cell cultures is more sensitive, enabling the observation of *T vaginalis* from an inoculum containing as few as 3 organisms/ml. However, cell culture is expensive, inconvenient and even more prone to vaginal bacterial contamination.

4-staining techniques have been used. The use of acridine orange and periodic acid-Schiff, among other techniques, have been shown to be more sensitive in some investigators' hands

5-The Papanicolaou smear (pap smear) also has considerable appeal because it is routinely used in gynecological screening and especially in women with a history of exposure to sexually transmitted pathogens.

6- Nucleic acid detection

Recombinant DNA technology has been adapted over the past decade as a diagnostic tool.

A variety of techniques, including complement fixation, hemagglutination, gel diffusion, fluorescent antibody and ELISA, have been used to determine the presence of trichomonal antibodies.