

Trichomonas vaginalis :

is a urogenital flagellate protozoan parasite .This parasite has important medical implications because infected women during pregnancy are predisposed to premature rupture of the placental membranes, and low-birth-weight infants.

Morphology : It exists only in trophozoite form , has five flagella , one of them has an undulating membrane.

Habitat: This parasite lives in the vagina and urethra of woman and in the urethra, prostate and seminal vesicle of man.

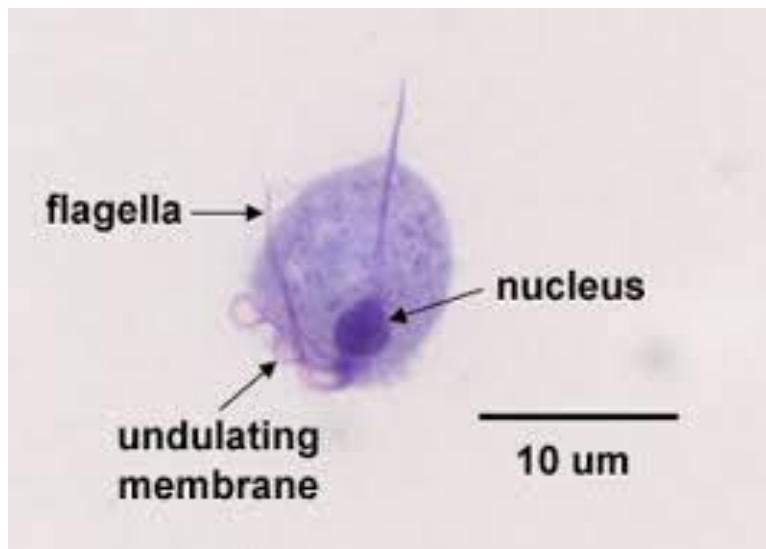
Life cycle : *T.vaginalis* exists only as a trophozoite and lacks a cystic stage and generally reproduces by longitudinal binary fission .

Transmission: Infection is transmitted by sexual intercourse.

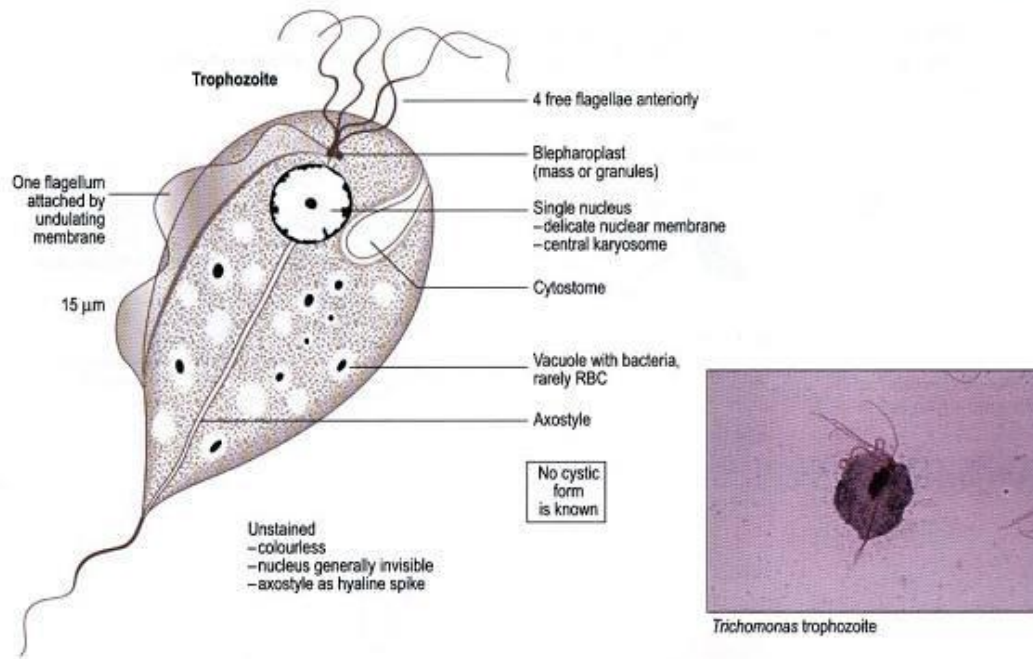
Clinical Presentation: In female, it causes vaginitis , cervicitis, hemolysis. In male, it causes urethritis, proctitis .

Treatment: Metronidazole or tinidazole

Diagnosis: Trichomoniasis is usually done by detecting the parasite in urinary deposit, vaginal swab in case of female, and in urine and semen in case of male.



T. vaginalis trophozoite



***Balantidium coli*:**

The only species pathogenic to humans. It can exist in reservoirs such as pigs, it is the largest protozoan parasite.

Morphology: It exists in two forms - trophozoite and cyst. The whole body is covered by cilia. Trophozoite has two (micro and macro) nuclei. Cyst contains both macro and micro nuclei.

Habitat: The trophozoites live in the lumen of colon.

Transmission: Infection is made place by ingestion of cysts through contaminated food or drinks.

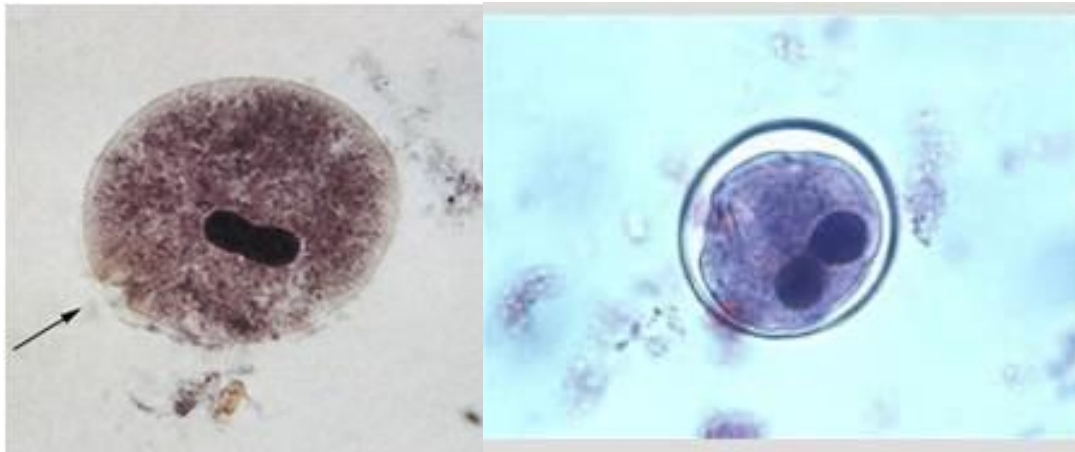
Diagnosis: Direct smear to detect cysts or trophozoites.

Life Cycle: The cyst form is the infective stage. Some trophozoites invade the wall of the colon using proteolytic enzymes and multiply by asexual binary fission or sexual conjugation (with the exchange of nuclear material).

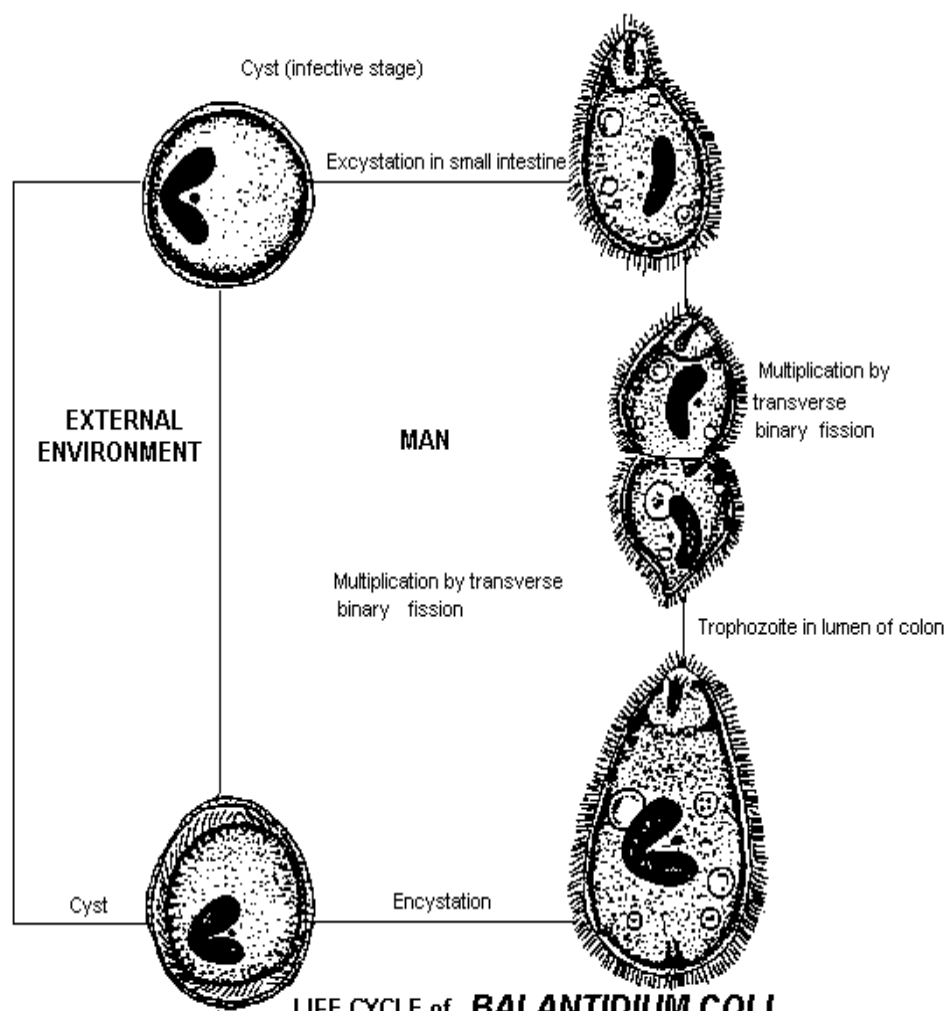
Clinical Significance: Diarrhea or dysentery, nausea, vomiting, anorexia, and headache, weight loss and **ulcer**.

Diagnosis: Direct smear of fresh and concentrated fecal material can determine the organism.

Treatment: Tetracycline is the drug of choice.



B. coli trophozoite *B. coli* cyst



Adapted and redrawn from NCDC