

A. Intestinal Flagellates:

Kingdom: Protista

Phylum: Protozoa

1. Subphylum: Sarcomastigophora

Class: Mastigophora (flagellata)

Sub Class: Zoomastigophorea

Order: Diplomonadida

Family: Hexamitidae

Giardia lamblia

Habitat: duodenum and Lumen of small intestine

Definitive host: Human

Intermediate host: Not present; direct transmission by ingestion of cyst stage

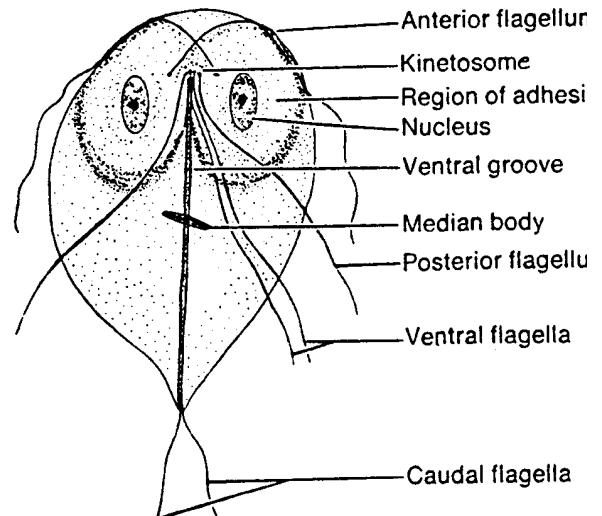
Diagnostic stage: Trophozoites or cysts in stool specimen.

Infective stage: Cyst stage

Disease: Giardiasis

Treatments: Adults: Quinacrine hydrochloride (Atabrine)

Children: Metronidazole (Flagyl)



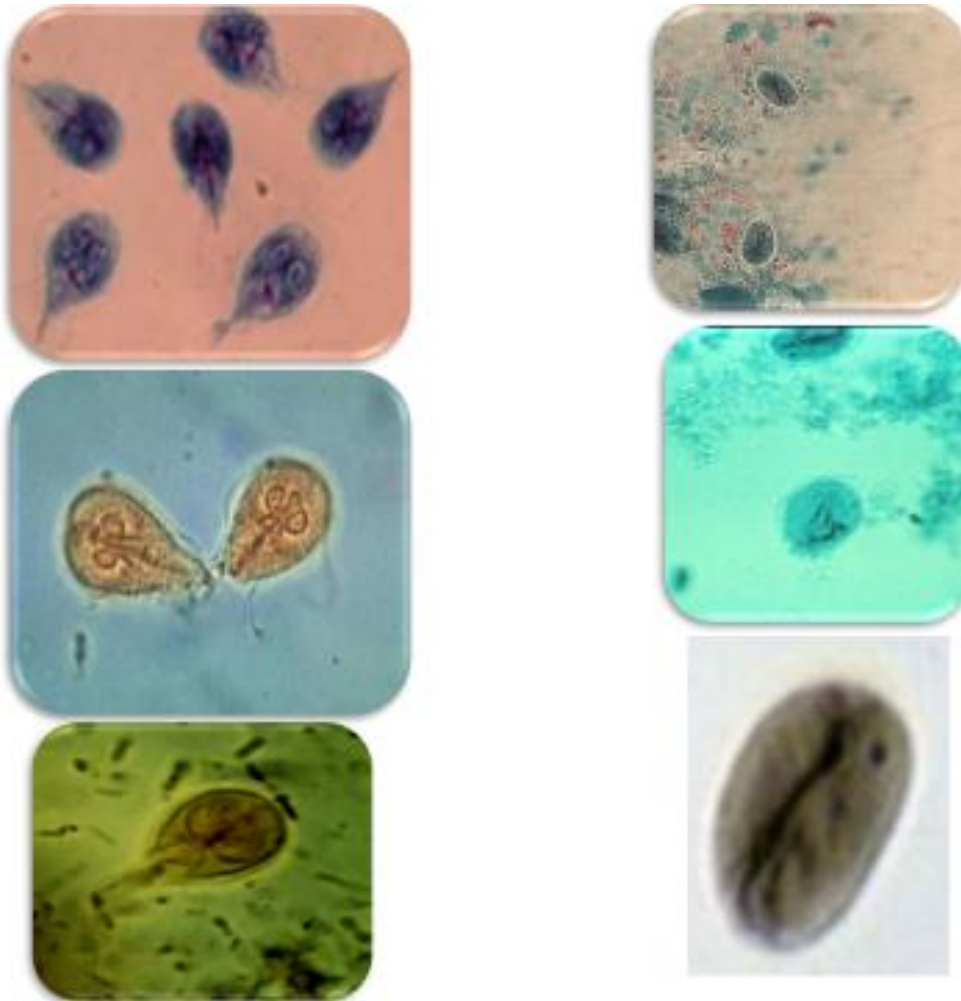
Typical Characteristics of

1. Trophozoite stage

Pear/teardrop **Shape**; Two **Nuclei** ovoid-shaped, each with a large Karyosome; Four pairs of **Flagella** origination of each :(One pair anterior end, one pair posterior end and two pairs central laterally); **other structures:** Two median bodies, Two axonemes, Sucking disc

2. Cyst may remain viable in the external environment (usually water) for many months.

Ovoid Shape; **Nuclei:** Immature cyst – 2; Mature cyst – 4; Central Karyosome; **Other structures:** Two or four median bodies (parabasal bodies), interior flagellar structures



b. Flagellates of the urogenital tract of the body.

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Phylum: Protozoa

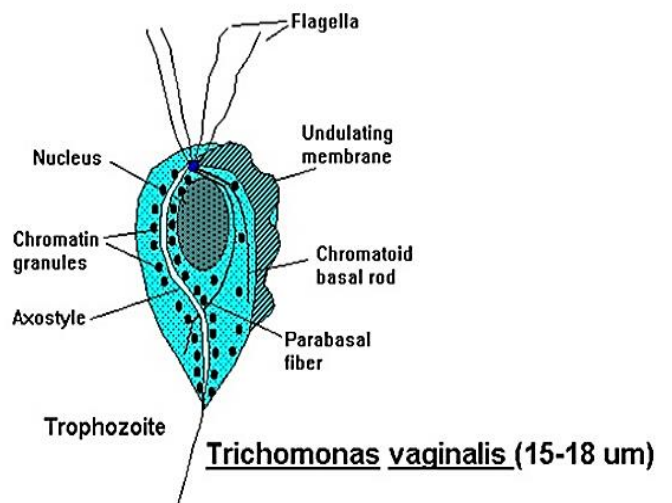
Subphylum: Sarcomastigophora

Class: Mastigophora

Subclass: Zoomastigophorea

Order: Trichomonadida

Trichomonas vaginalis



Morphology of Trophozoite stage:

Pear shaped; Four anterior free flagella and a lateral marginal flagellum with an undulating membrane that reach to about half of the body length; thin axostyle midway crossed by thick parabasal body; Single vesicular Nucleus anteriorly & a small antero-lateral cytostome.

Habitat: Trophozoite lives in the vagina and urethra of infected females. In the urethra and prostate of infected males (**Never becomes cyst**).

Final host: human

Intermediate host: none, direct life cycle

Infective stage and Diagnosis stage: Trophozoite stage

Mode of transmission: sexual intercourse, Transmitted directly during from infected partner to the other.

Disease: Trichomoniasis

Treatment: Metrodinazol (Flagyl)

DIAGNOSIS

1. Microscope: demonstration of trophozoites in: urine, urethral secretions, vaginal secretions, semen, prostatic secretions
2. Culture of discharge. (Modified Diamond's media)
3. Detection of *T. vaginalis* antigen in discharge by: Enzyme immunoassay.
4. Detection of DNA of the parasite by Molecular techniques (PCR).

