

Tikrit University

College of Nursing

Basic Nursing Sciences



Second Year - 2023-2024

Microbiology

Giardia lamblia

By: lecturer

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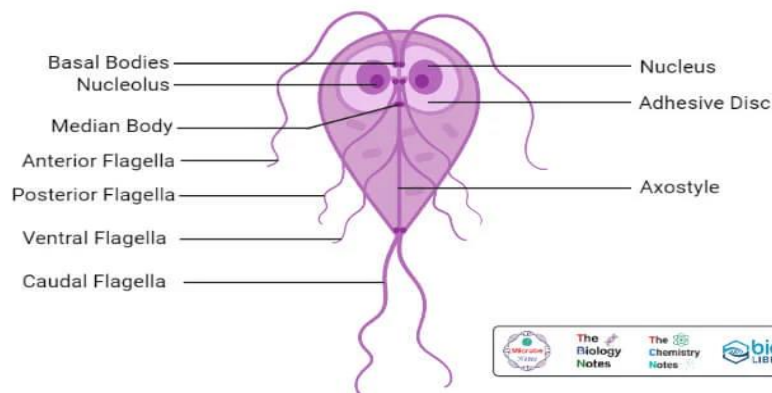
Giardia lamblia

Trophozoite

- 1-pear or pyriform shaped
- 2-found in diarrheic stool
- 3- rounded anteriorly and pointed posteriorly
- 4- bilaterally symmetrical
- 5- looking like tennis rackets without the handle
- 6- Divide by binary fission
- 7-sucking disc (used for attachment of jejunal or duodenal mucosa)
- 8-Motility by 4 pairs of flagellae 2 ventral and 2 caudal
- 9-Two oval nuclei with central karyosome
- 10-Two axostyle traversing the body
- 11-Two rod-shaped parabasal bodies across the axostyle



Giardia duodenalis (Giardia lamblia or Giardia intestinalis)



Cyst

Average size 12 X 7 μ

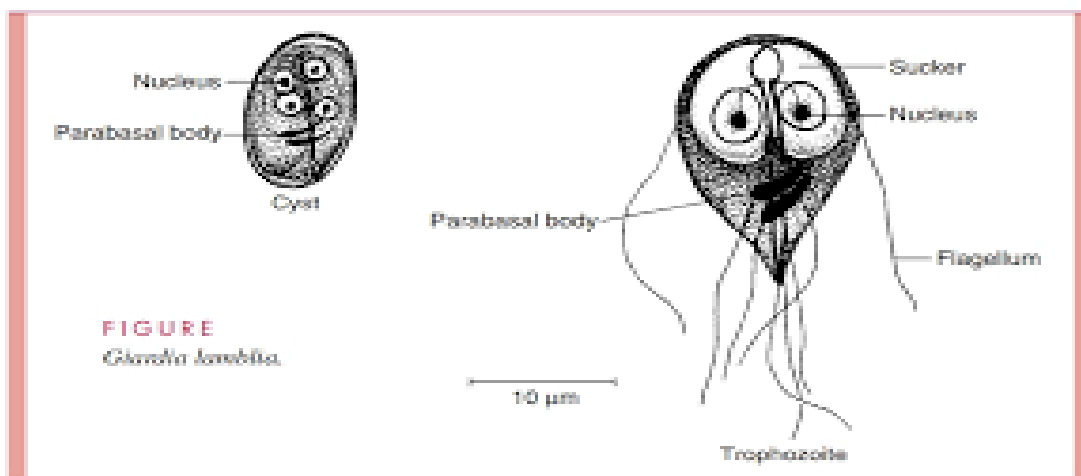
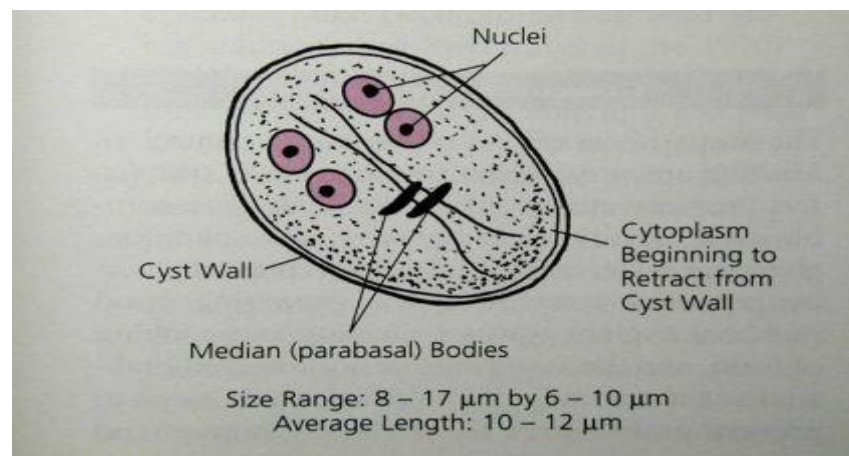
Oval with well defined cyst wall

Four nuclei present usually at one pole.

Includes: axostyle – parabasal bodies – remnants of flagella

Habitat: duodenum and jejunum

Mature cyst is the infective stage



Trichomonas vaginalis

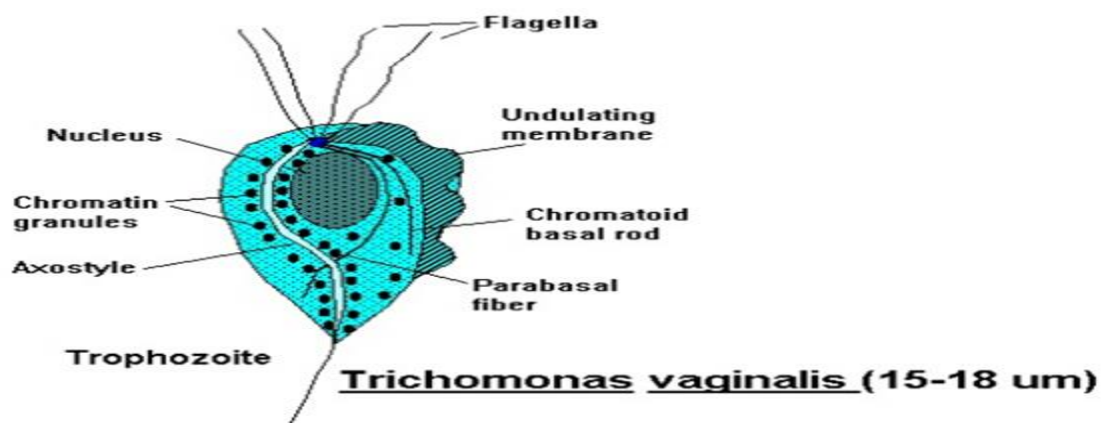
Important features:

- A sexually transmitted disease (STD),
- Trichomonas vaginalis exists in only one morphological stage, a trophozoite.
- It is a pear-shaped organism with a central nucleus
- Four anterior flagella; and undulating membrane extends about two-thirds of its length



Human Trichomonads:

- 3 species of trichomonads found in human.
- Two are normally harmless.
- Trichomonas hominis which inhabit large intestine & non pathogenic.
- Trichomonas tenax which inhabit oral cavity & commensals.
- Trichomonas vaginalis is the Urogenital pathogenic flagellate which is a serious sexually transmitted pathogen.



Urogenital flagellate: *Trichomonas vaginalis*

-Causes : Trichomoniasis

-Geographical Distribution : worldwide

-Habitat: *T. vaginalis* trophozoite lives:

- In the vagina and urethra of infected females.

-In the urethra and Prostate of infected males (Never becomes cyst)



Treatment

-To prevent reinfection, both partners should undergo treatment, and most common treatment for trichomoniasis is to swallow a single large dose of :

1.Metronidazole (Flagyl)

2.Tinidazole (Tindamax) to reduce the risk of infection.