



# SEM 4 PRACTICAL PARA REVISION



## Each Slide has Two Questions

**Q1: Identify??**

**متنشاش**

**Q2: A. Parasite Life cycle (DH, IH, RH, Habitat, Stages of life cycle, Infective stage, Diagnostic stage, Mode of infection).**

**B. Diagnostic specimens or samples.**

**C. Most important or commonest C/P**

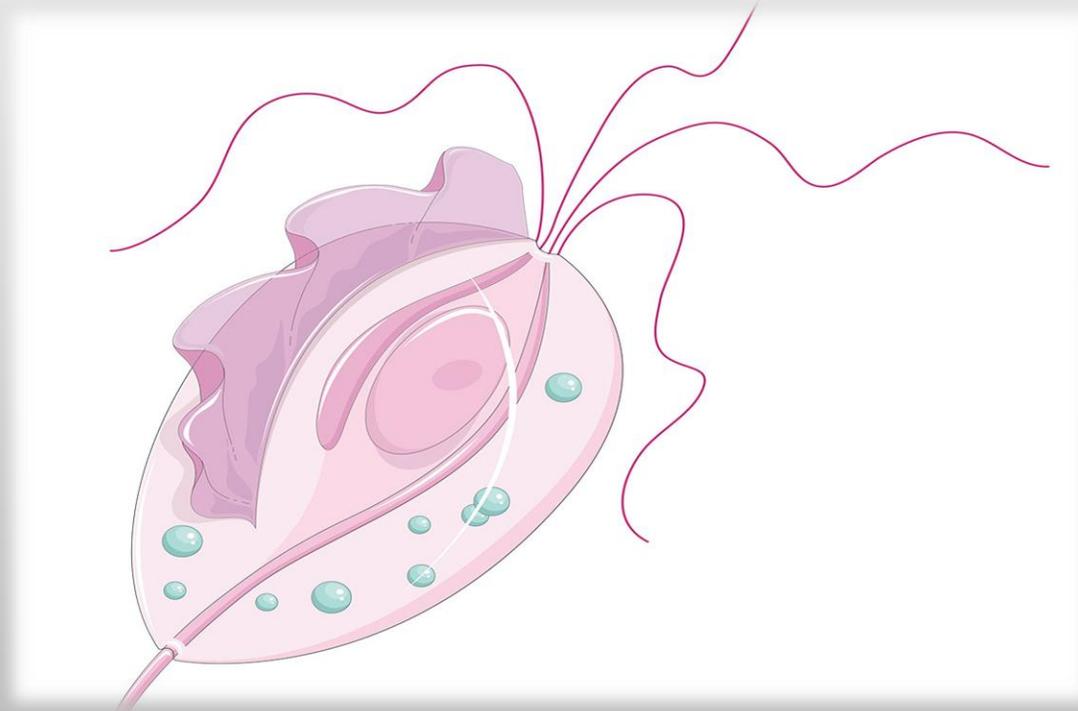
**D. Most important or commonest Complication**

**E. Specific treatment**



# Parasites Affecting The Reproductive System

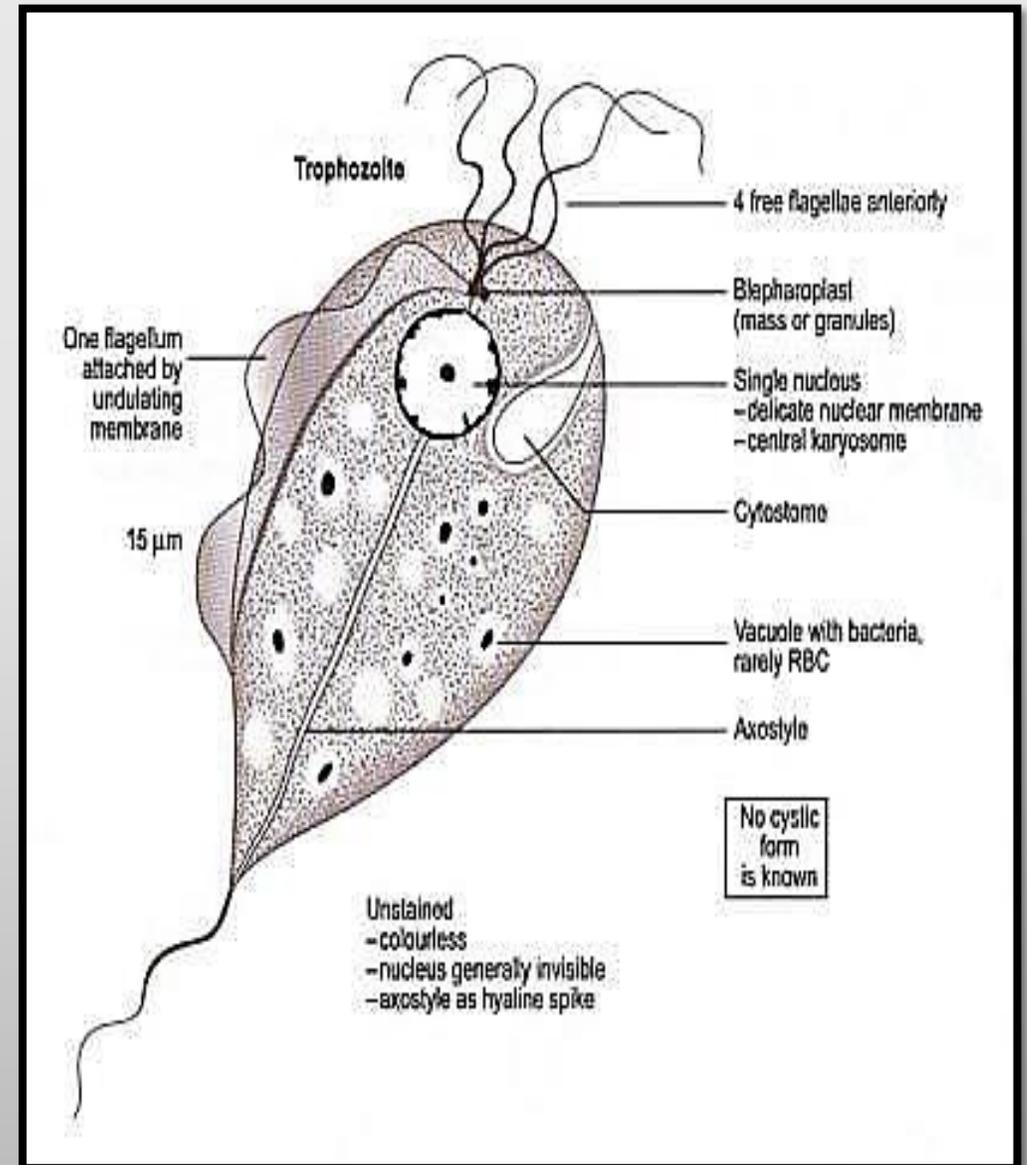
# 1) *Trichomonas vaginalis*



# Morphology

## 1) Trophozoite:

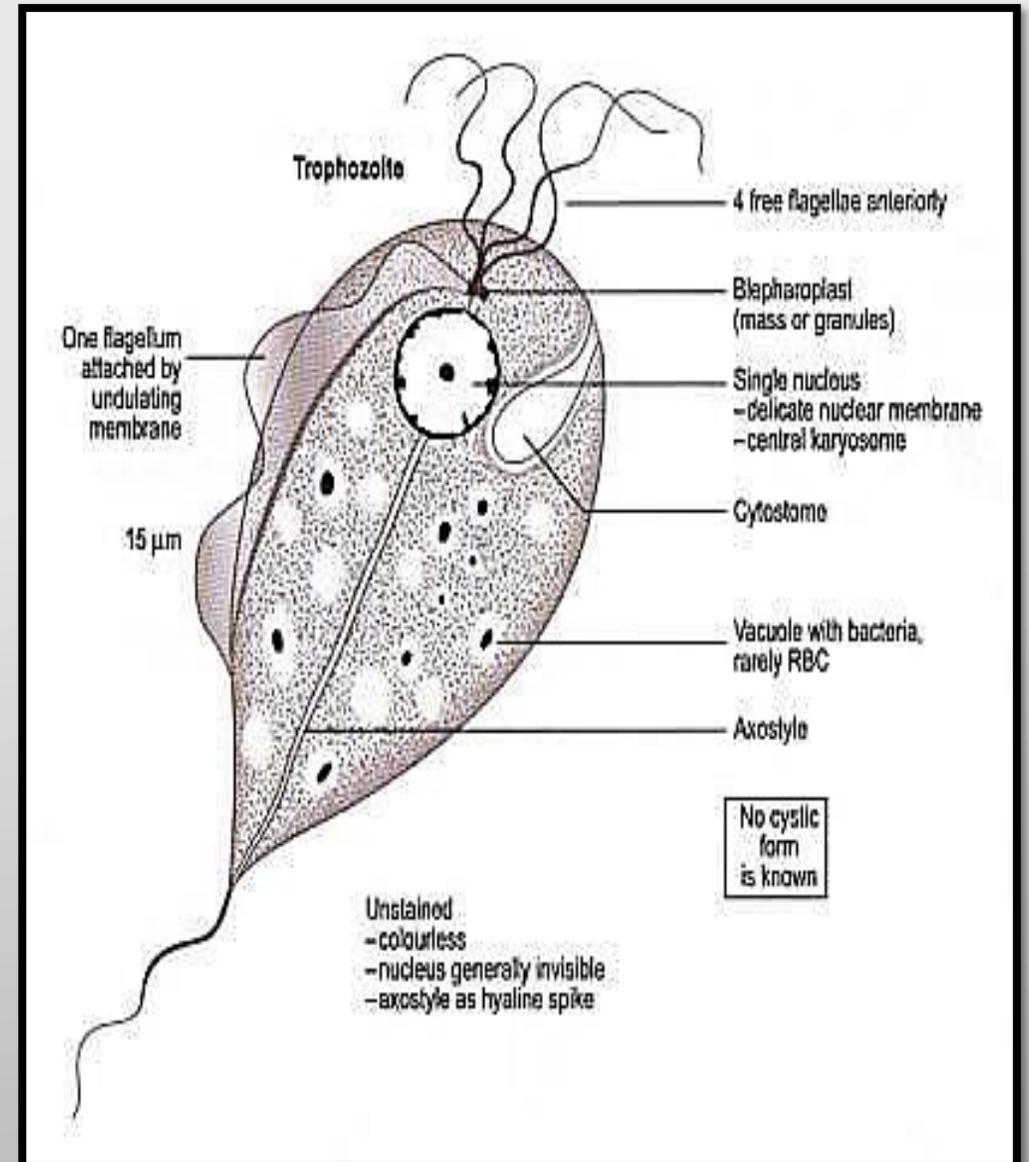
- pear-shaped
- 17x10  $\mu$ ,
- with a rapid jerky movement.
- an antero-lateral cytostome.
- The cytoplasm is granular with a single anterior nucleus



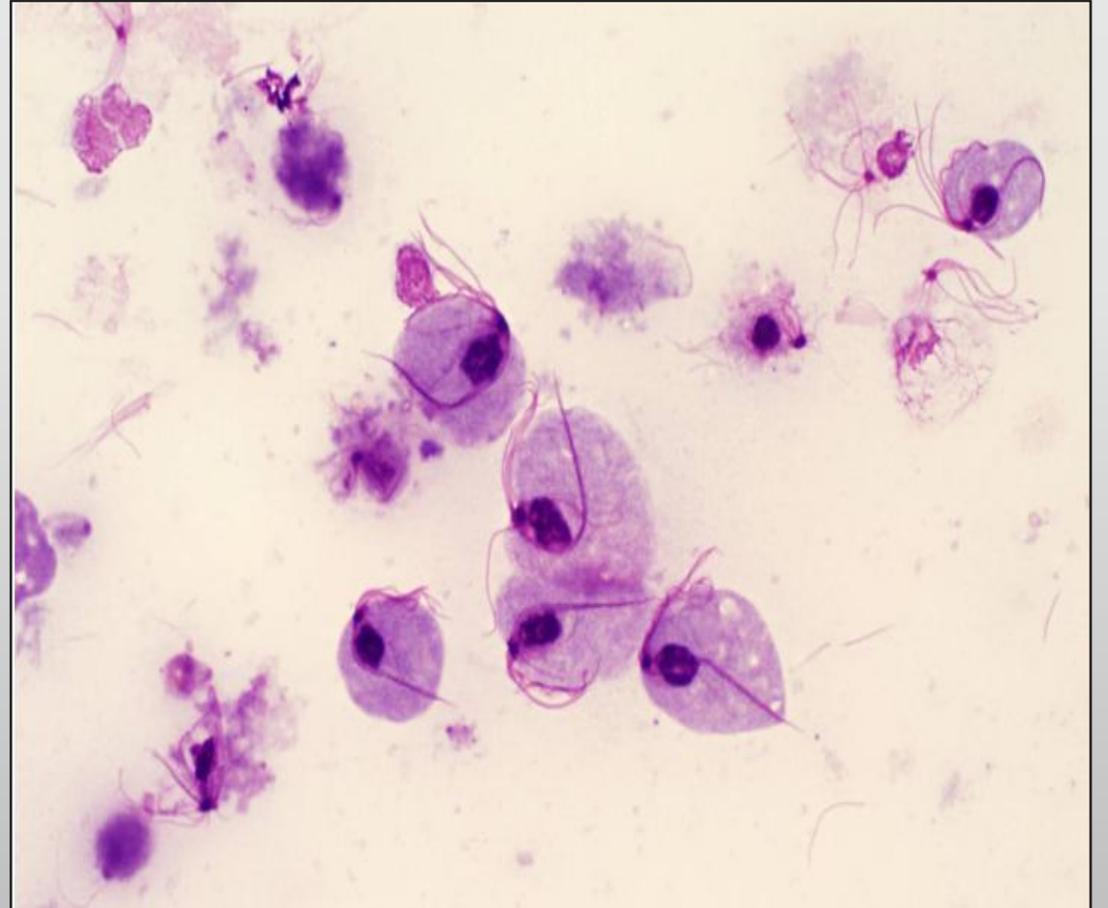


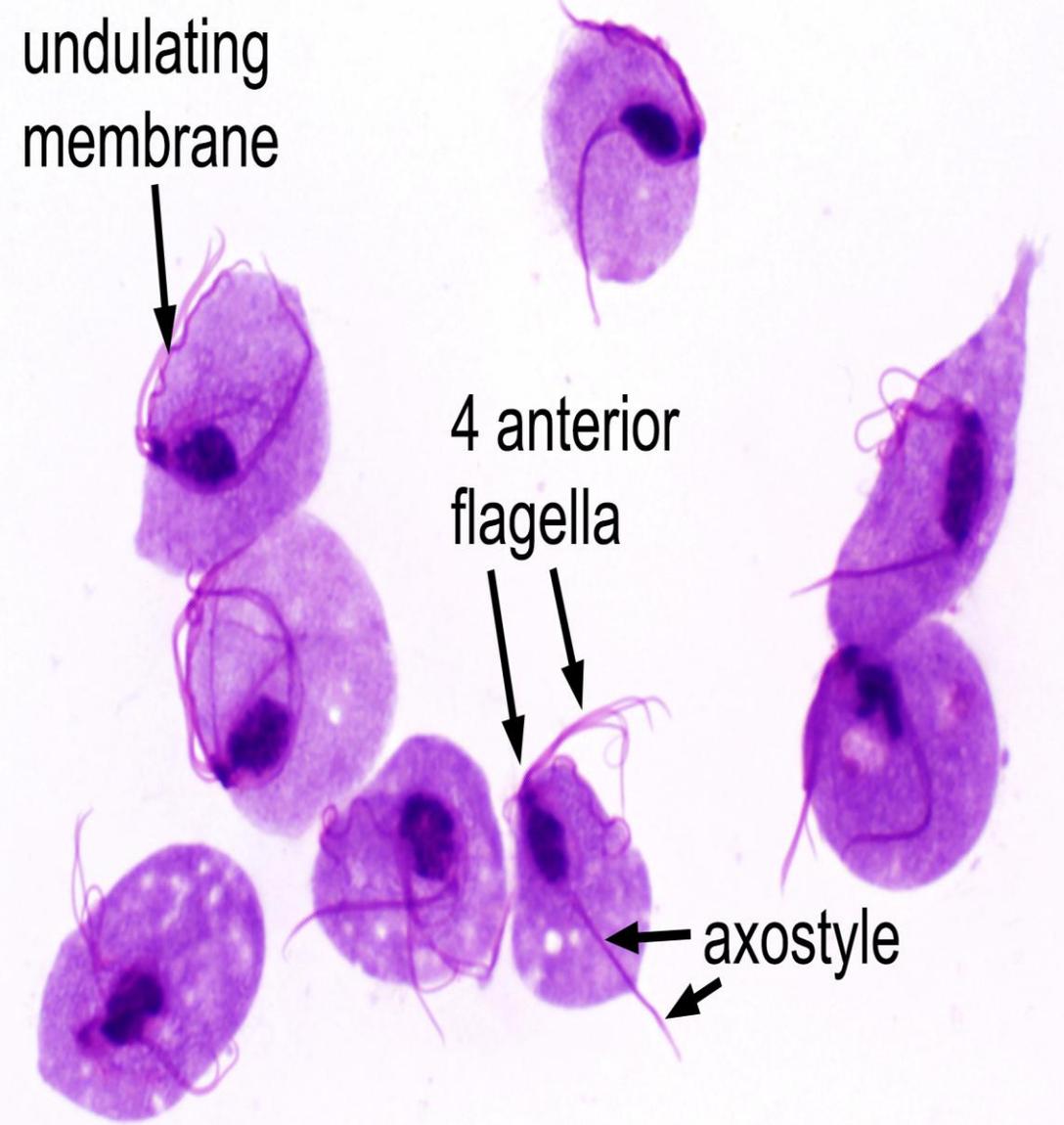
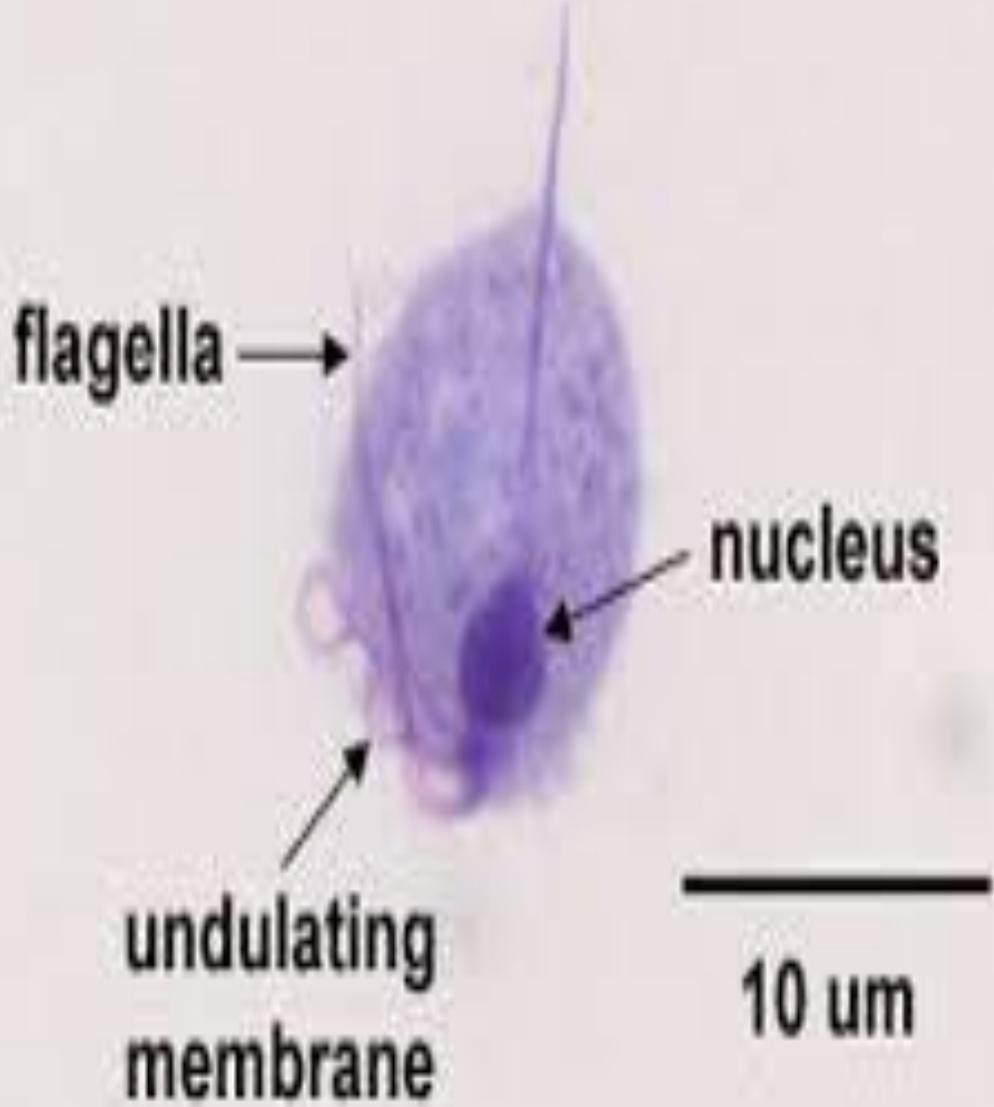
# Morphology

- 4 free flagella anteriorly
- 5<sup>th</sup> flagellum attached to the body by undulating membrane, presents at the anterior 1/3 of body
- 6<sup>th</sup> flagellum passes through the body as axostyle



# *Trichomonas vaginalis* trophozoites







## 2) *Toxoplasma gondii*



## ➤ *Toxoplasma gondii* morphological stages:

*Toxoplasma gondii* occurs in 4 forms:

- 1) Trophozoite (Tachyzoite).
- 2) Pseudocyst.
- 3) True tissue cyst.
- 4) Oocyst.

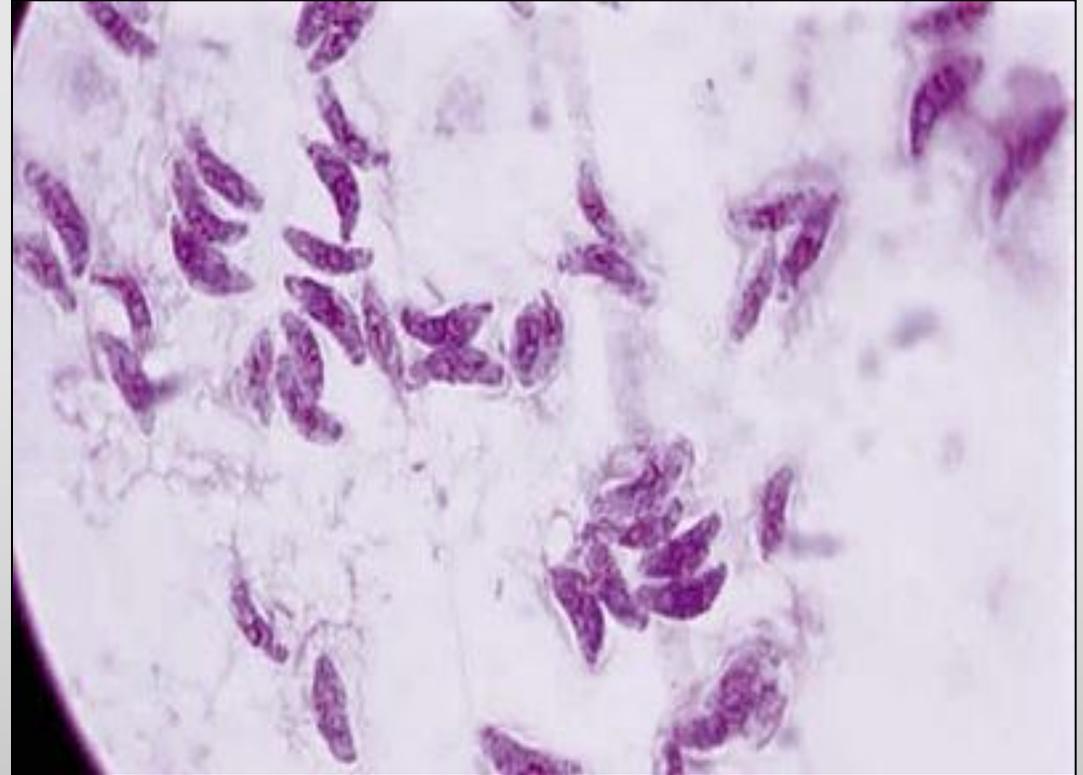
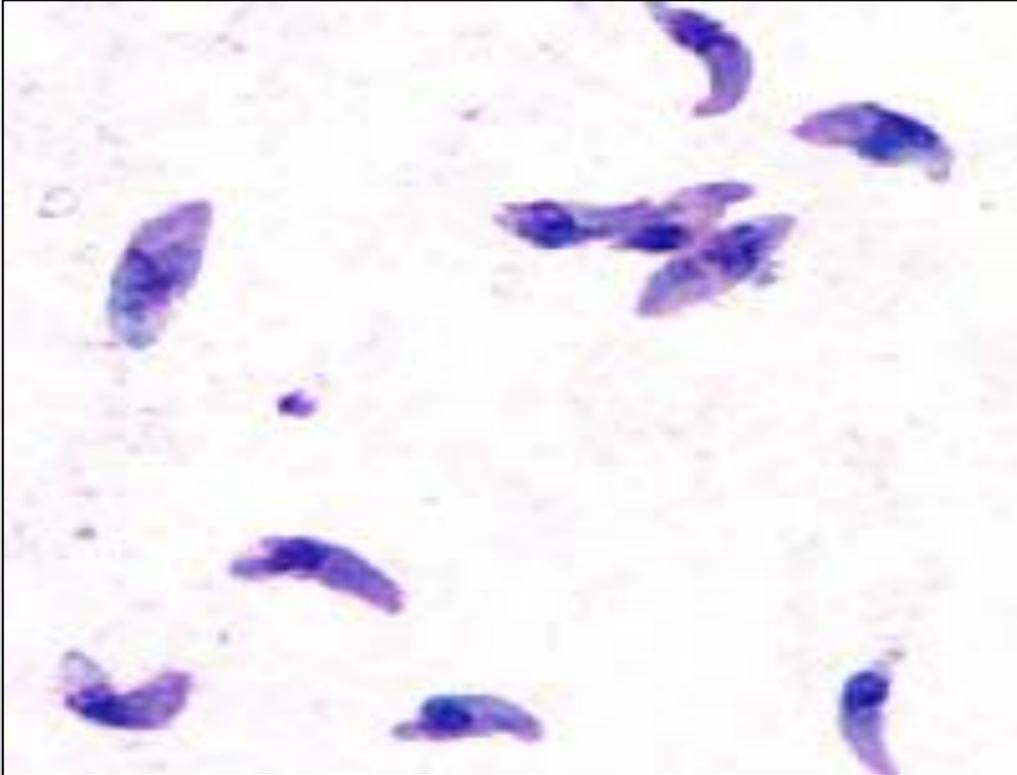


## 1) Trophozoite (Tachyzoite):

- It is the **active multiplying** stage, found in the **acute stage** of infection.
- *Shape*: crescent, with pointed anterior end and rounded posterior end.
- *Size*: 3x6  $\mu$
- *Content*: has an ovoid posterior nucleus and anterior paranuclear granules.
- *Site*: seen intracellular in various tissues, multiplies within cytoplasmic vacuoles of any **nucleated cell**.



# *Toxoplasma* tachyzoites



## 2) Pseudocyst:

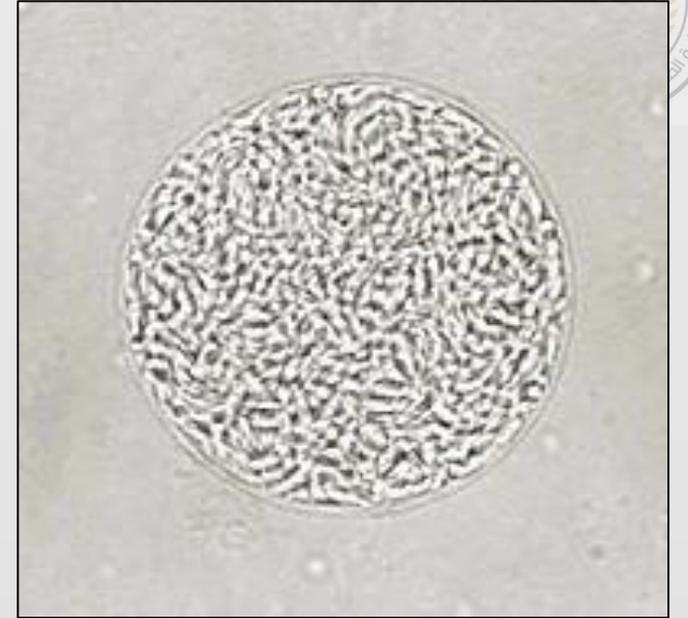
- It is found in the **acute stage** of infection.
- It is full of rapidly multiplying tachyzoites.
- It has **no** cyst wall.
- *Site:* It is localized inside the RECs.



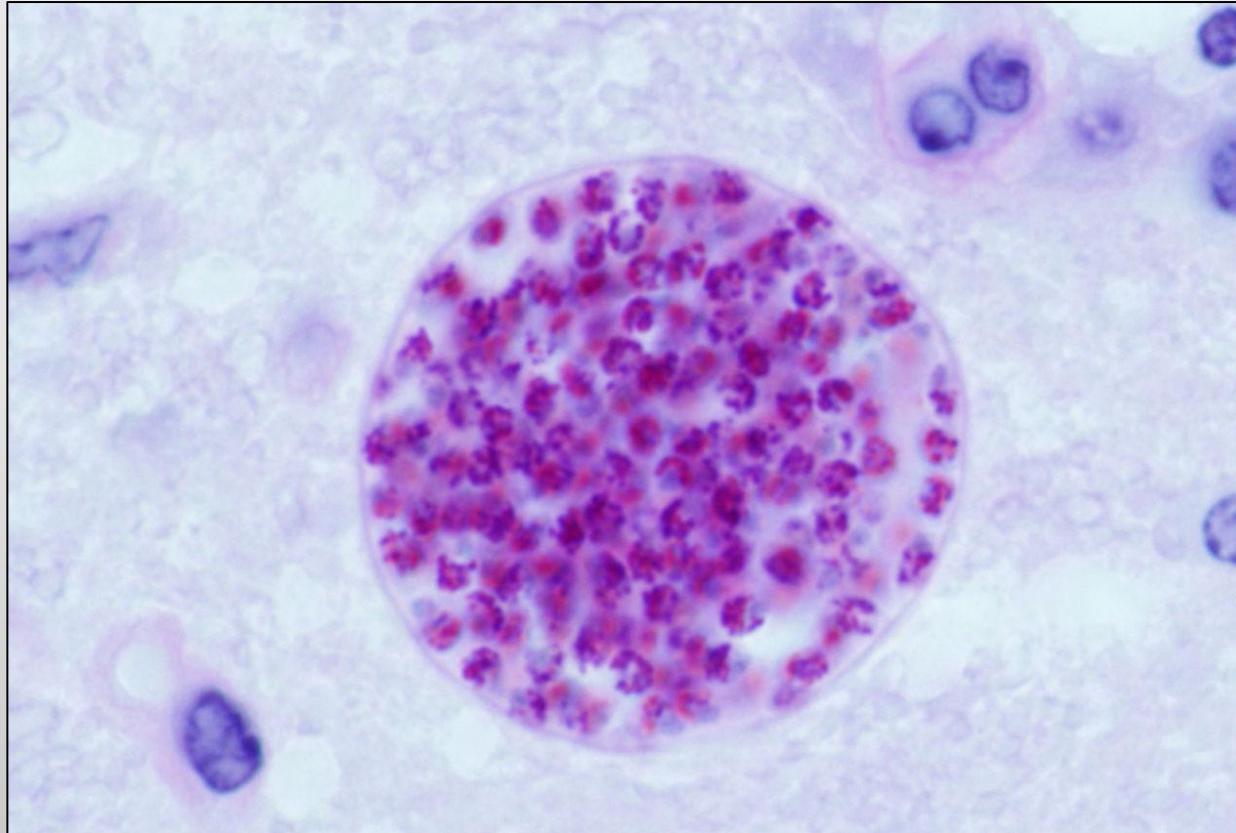
*Toxoplasma pseudocyst*

### 3) True tissue cyst:

- It is found in the **chronic stage** of infection.
- *Shape:* The cyst is round or oval
- *Size:* 5-50  $\mu$
- *Content:* contains slowly multiplying bradyzoites.
- It has **cyst wall**.
- *Site:* found in the brain (**most common site**), skeletal and cardiac muscles and various organs.
- It remains viable for years, and immunosuppression causes reactivation of cysts.



# *Toxoplasma* true tissue cyst



**3) Oocyst:** This stage is only present in **cats** and other felines.

- **Shape:** It is oval, surrounded by a thick resistant wall.
- **Size:** 10x12  $\mu$
- Non-infectious when excreted in unsporulated or immature stage in cat feces.
- It sporulates, by sporogony, within 1-5 days and becomes infectious.
- The **mature** or sporulated oocyst contains 2 sporocysts, each containing 4 sporozoites (**disporocystic tetrazoic oocyst**).
- It may remain viable in moist shaded soil for a year or more.





**oocyst**



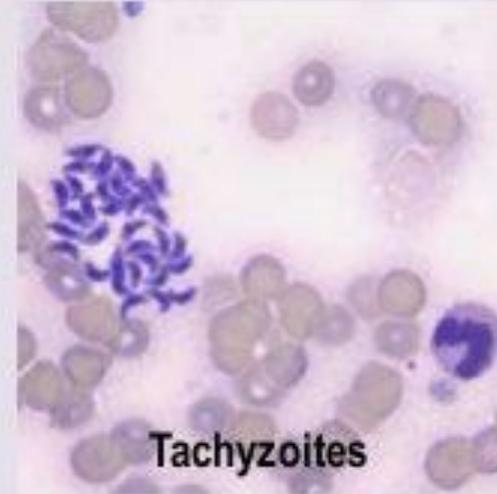
**Sporulated  
oocyst**



**Bradyzoites  
within  
tissue cyst**



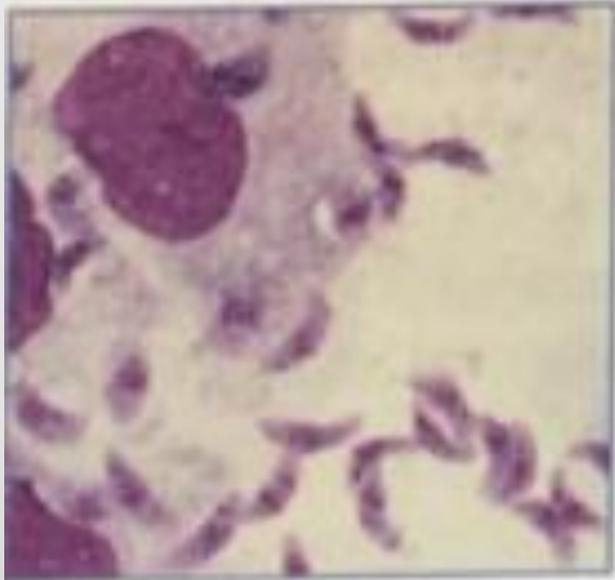
**Tachyzoites**



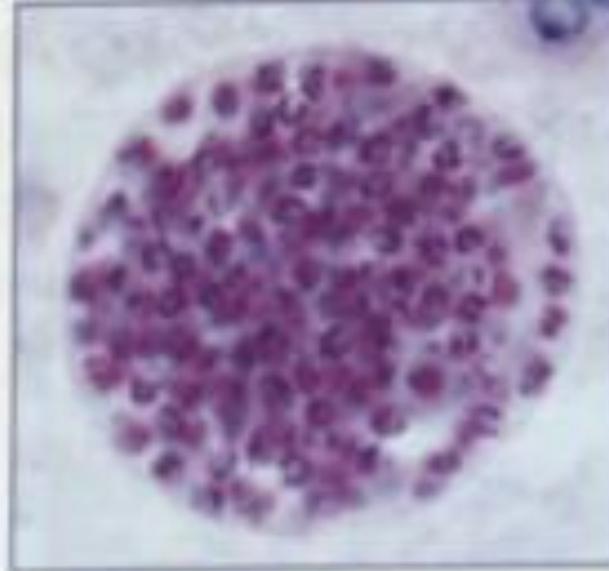
**Tachyzoites**



# Morphology



**Trophozoite**



**Tissue cyst**



**Oocyst**

**1. Identify this parasitic stage?**

.....

**2. The complication of this parasitic infection is .....**

**Answer:**

**1. Trichomonas vaginalis trophozoites**

**2. Cervical carcinoma**

