## Lab-4 (Protozoa)

- -Amoeba
- Habitat: freshwater ponds.
- Means of locomotion: pseudopodia.
- Reproduction mechanism: asexually by binary fission
- Shape and characteristics: quite irregular in shape; the body changes its shape constantly with the formation and withdrawal of the pseudopodia

# -Intestinal Amoeba

Entamoeba histolytica(pathogenic)

Entamoeba histolytica It causes amoebic dysentery.

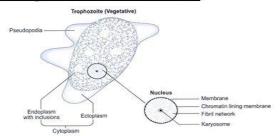
#### Life cycle:

- The trophozoite: feeding dividing form) It has one pseudopodia).
- Cyst: have 4 nuclei (infective stages)
- Infective stage: Cyst.
- Mode of infection: contamination of food and water with cyst.

# Entamoeba histolytica

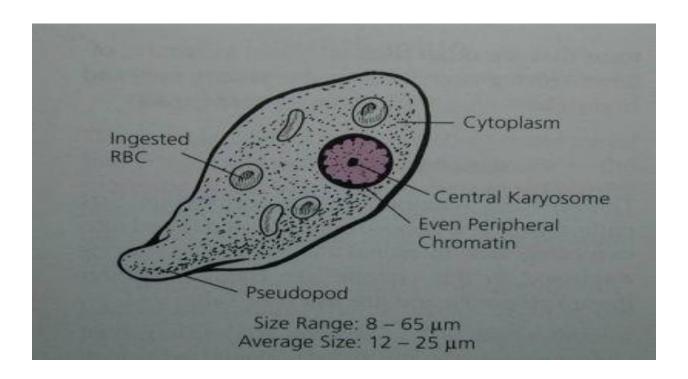
### Morphology of Trophozoite(vegetative form):

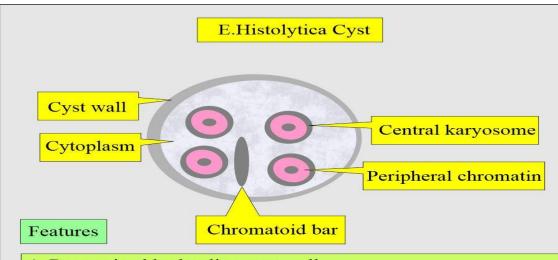
- 10-60 X 15-30 μ average (20-25 μ)
- Cytoplasm is clearly differentiated into:
- Ectoplasm: is clear with well developed pseudopodia.
- Endoplasm: dense & fine granular enclosing:
- Nucleus: spherical containing central karyosome & peripheral evenly distributed small chromatin dots.
- Food vacuoles: contain leucocytesbacteria-may be RBCs.





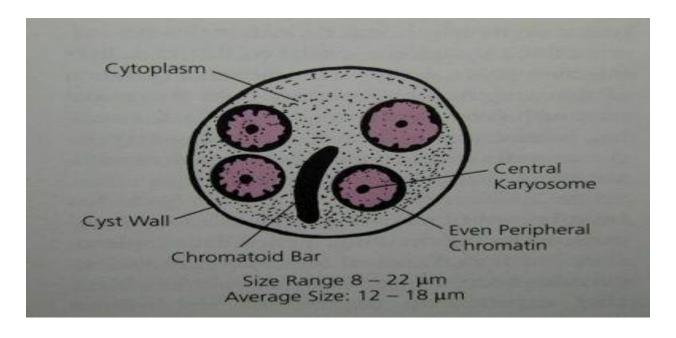
Dr. RAAFAT MOHAMED





- 1. Recognized by hyaline cyst wall
- 2. Shape irregular or ovoid
- 3. Size 10 to 20 µm
- 4. Unstained cyst wall is highly refractile
- 5. Nuclei one to four
- 6. Chromatoidal bar are RNA
- 7. Stained with iodine shows:
  - A. Cyst wall as yellowish green to yellow brown,
  - B. Nuclear membrane and karyosome are distinct and light brown
  - C. Glycogen is dark yellow brown

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#### **MEDICAL PARASITOLOGY**

# Stool characterization recovered from patients with amoebiasis

1-The appearance: consists of blood and mucus

2-Coloured: dark red

3-Odor: offensive (foul smell)

4-Chemical reaction: acidic 5-Presence of pus cell: scanty

6-Presence of R.B.Cs numerous

7-Presence of macrophage: nil

8-Presence of eosinophils: present (scanty





cyst trophozoite