

Protozoa

Unicellular, single cell for all functions.

1:Amebae: move by pseudopodia.

2:Flagellates: move by flagella.

3:Ciliates: move by cilia.

4:Apicomplexa(Sporozoa) tissue parasites.

Giardia lamblia

Giardia trophozoites

Giardia cyst

→ Giardiasis

Clinical Picture

Asymptomatic infections (majority).

Symptomatic Infections:

Typical picture: IP 1-2 wks followed by diarrhoea for about 6 wks.

Atypical : Severe diarrhoea , malabsorption especially in children.

Diagnosis

Stools examination :

Microscopy for **cysts** or trophozoites

Detection of Giardia **antigens** in **stools**

Examination of duodenal contents:
trophozoites.

Drug of choice: **Metronidazole**

Entamoeba histolytica (pathogenic)

E. dispar non invasive.

The 2 amebae can't be distinguish by microscopic.

Mode of infection

Infected Water, food.

Flies can act as vector.

Can be **sexually** transmitted.

Not a zoonosis.

The infective dose can be **1 cyst**.

Intestinal amoebiasis(conical flask ulcer)

Ability to hydrolyse host tissues with their active enzymes present on the surface membrane of the trophozoite.

Lesions found in the **cecum, appendix, or colon**.

They may heal. If perforation of the colon occurs, this may lead to peritonitis that can lead to death.

Amoeboma: **Granulomatous** mass obstructing the bowel.

Can be extra-intestinal.

Diagnosis

Intestinal:

Stools examination:

Wet mount (cysts and trophozoites).

Concentration methods (only cysts).

Serology (mainly for invasive infections): IHA, ELISA.

Extra-intestinal:

Serology: IHA, ELISA.

Microscopy of tissues or fluids.

Treatment

Intestinal :

Asymptomatic (cysts only):

diloxanide furoate

(Furamide).

Symptomatic(cysts & trophozoites):

metronidazole.

Extra-intestinal:

Metronidazole.

Cryptosporidium Parvum

Diagnosis: **acid fast stain**, or Crypto-Gardia FAT.

Treatment: **Self-limited** in immunocompetent patients.

In AIDS patients: **paromomycin**.