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DI(H)

ENTAMOEBA HISTOLYTICA

Entamoeba is an important genus Amoebina, all are endoparasites and occurs mostly in the alimentary canal of the hosts. Nucleus is vesicular with a small endosome in the centre and numerous peripheral chromatin granules. There are 3 important species of Entamoeba in man:-

1. E. gingivalis 2. E. coli and (3.) E. histolytica

Classification

Phylum: Protozoa
Class: Sarcodina
order: Lobosa
Family: amoebidae
Type: E. histolytica

Entamoeba histolytica is the most common Protozoan parasite found in the large intestine of man. It is commonly known as dysentery amoeba. It is first of all reported by Russian Zoologist. Losch in 1875. It has a world wide distribution specially in the tropical and Subtropical countries where Sanitary conditions are poor.

Morphology:- E. histolytica is a microscopic parasitic amoeba and is found in two forms; i.e. dimorphic

1. Trophic form or Trophozoite or Magna form
2. Precystic form or Minuta form

1. Trophozoite: These are large in size 20-30μ in diameter, tissue dweller, feeds on RBC. It is responsible for destruction of tissue and production of clinical symptoms.

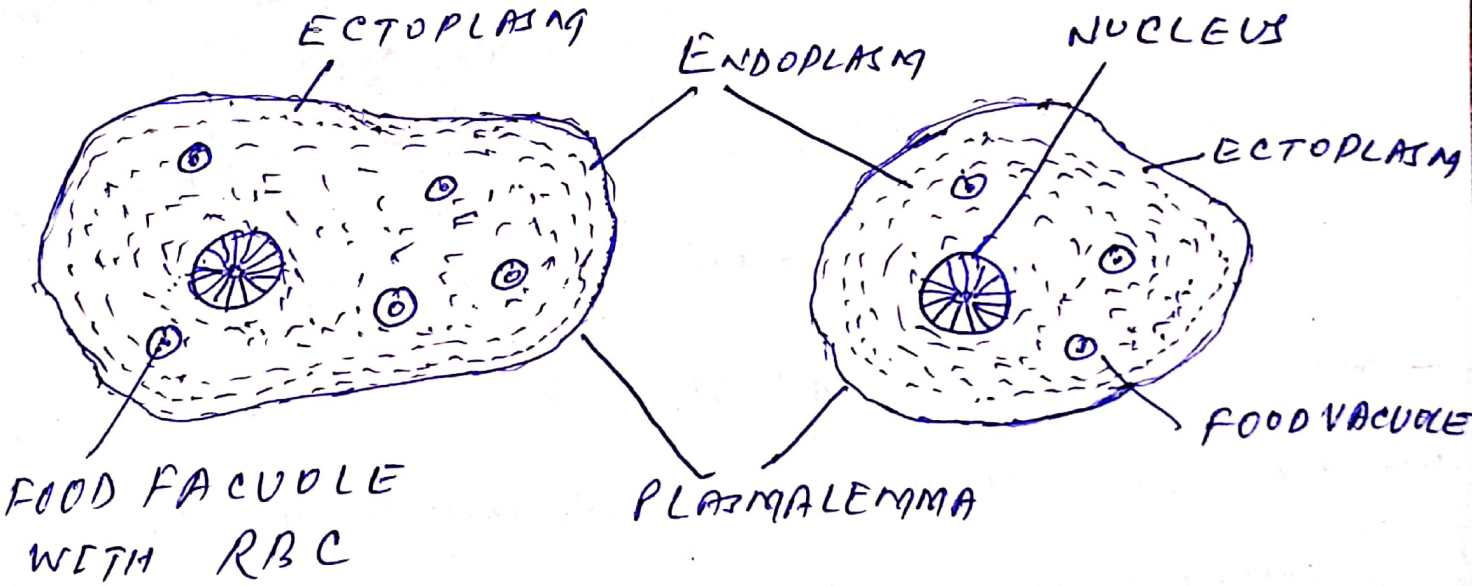

Fig:- TROPHOZOITE

MINUTA FORM

2. Minuta form: These are small, 12-15 μ in diameter, live in the lumen of the large intestine. These are harmless and feeds on bacteria.

The structure of E. histolytica is very similar to that of Amoeba. The body is surrounded by a thin transparent, semipermeable membrane called plasmalemma. The cytoplasm is differentiated into an outer clear cytoplasm and inner granular endoplasm. Only a large and broad pseudopodium projects out from its body in the direction of movement. The endoplasm contains a vesicular nucleus and several food vacuoles. The nucleus is rounded structure containing numerous chromatin granules and distinct endosome or karyosome in the centre. Fine striations radiate from endosome to chromatin granules. The food vacuoles contain RBC, epithelial cell and bacteria. Contractile vacuoles are absent because the parasite lives in an isotonic environment.