

Family : Cryptosporididae

Genus: *Cryptosporidium*

Cryptosporidium is a protozoa of Phylum Apicomplexa and causes diarrhoeal illness called cryptosporidiosis. *Cryptosporidium* is capable of completing its lifecycle within a single host.

This is the parasite of gastrointestinal and respiratory epithelium without forming tissue cyst. Found in wide range of animals including man. It affects the intestine of mammals and typically an acute short term infection. It spread through the fecal-oral route often through contaminated water. It is an unique amongst all coccidian parasite having with smallest oocyst. This protozoa is intracellular, extracytoplasmic.

Mode of transmission:

Ingestion of contaminated food and water with sporulated oocyst and through inhalation.

This parasite provided with 'feeder' or 'attachment' organelle at the interphase with the host cell.

Two type of oocyst is present.

1. Thin walled- This oocyst donot leave the host intestine and initiate a new developmental cycle. This mode of infection is called **Auto-infection**.
2. Thick walled- Pass out along with the faeces of host. That,s why this protozoa is unique amongst all coccidian parasite.

Pathogenesis:

Crypts. Is not host specific. Isolates of humans are infectious to a varietyof mammals. Spp. *C. parvum* is ubiquitous. It is found in children, cow and buffalo.

Inimmunocompetent host, epithelium of SI will be affected but in immunocompromized host ,entire GI tract from oesophagus to rectum including pancreas, liver, gall-bladder as well as respiratory tract involved. Pathogenesis mainly mild to moderate. Villus atrophy, degeneration, sloughing of enterocyte, crypt hypertrophy, exess mucous production in respiratory tract. Young animals are highly susceptible.

In cattle 2 spp. of *Cryptosporidium* found. *C. parvum* and *C. muris*. In bird *C.parvum*, *C. baileyi* and *C. meleagridis*.

Diagnosis:

Detection of oocyst in faeces(Ziehl-Nielsen method)

Treatment and Control:

No treatment against crypts. Decoquinate, sulphoquinoxaline used.

It,s a zoonotic disease. It causes diarrhoea in human