

Toxoplasma gondii

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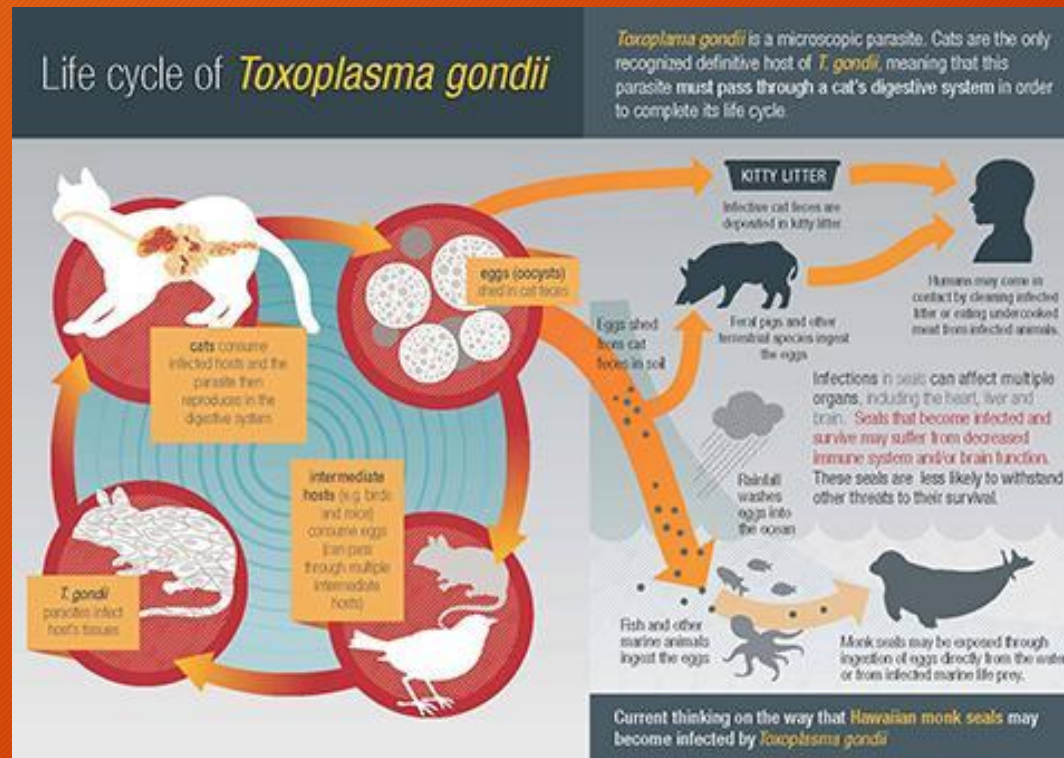
Group no:194 b

MORPHOLOGY

- Pseudocytes: intercellular collection of trophozoites in macrophages and reticuloendothelial cells in the acute stage of infection.
- Trophozoites: obligate intracellular parasites, about 6x2mm, crescent shaped with central nucleus and multiply by binary fission to form pseudocytes.

- Cysts: collection of trophozoites (cystozoites-bradyzoites) enclosed in a true tissue cyst, in chronic stage or latent infection when immunity develops .
- Oocysts: oval, 10x12mm, contains two sporocysts each containing four sporozoites, and found in stools of infected cats

Life cycle



- In cats and other felines when cats ingest pseudocyst, cysts, a cycle of schizogony and gametogony takes place in intestinal epithelium with resultant Formation of oocysts that are excreted in stools

- In man and other animals : ingestion of pseudocyst or oocysts does not results in an intestinal cycle ,bit exTaintestinal Development brakes place with formation of pseudocyst and cysts in viscera ,muscles and brain

Human infection takes place



- Ingestion of undercooked infection meat cysts and paeudocysts



Contamination of water or food with infected cats feces



- Transplacental (congenital)

- Contamination of mucous membranes with trophozoites (laboratory infection)

Pathogenicity

- Chronic toxoplasmosis

- The commonest form without symptoms, or with chorioretinitis ; detected by the presence of antibodies in the serum. persons with latent form when subjected to immunosuppression from what ever cause (immunosuppressive therapy or infection as aids) may develop acute symptomatic infection

- In woman who are infected for first time in first four months of pregnancy, the fetus may become infected. the baby may be aborted or dies shortly after birth. live infants show signs of congenital toxoplasmosis: hydrocephalus, encephalitis, chorioretinitis and cerebral calcification. Maternal antibodies when present (acquired before pregnancy) protect the fetus

Acute symptomatic toxoplasmosis may present as

- Exanthematous form: typhus fever with rash and enlarged lymph nodes
- Lymphatic form: enlarged lymph nodes, liver and spleen similar to glandular fever
- Cerebrospinal form: meningoencephalitis.

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- Diagnosis

- Frenkel intradermal test
- Serological tests
- Isolation of parasite by inoculation of laboratory animal with biopsy Material

Prevention and control

- Through cooking of any type of meat. Freezing of meat to -20degree for 2days may kill the cysts.
- Care in handling meat
- Care in handling cats
- Avoid contamination of food and drink with cat feces.oocysts in cat feces can remain infective for a long period.

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- Thank for your attention