



SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

COURSE NAME: GENERAL PATHOLOGY I YEAR

UNIT IV: INFECTIOUS DISEASES

TOPIC: VIRAL INFECTION

SUB TOPIC : TORCH COMPLEX



TORCH Complex



- TORCH Complex is the medical acronym for a set of **perinatal infections**, that can lead to severe fatal anomalies or death.
- There are group of **viral, bacterial and protozoan** infections that gain access to the fetal blood stream transplacentally via the chorionic villi





TORCH Complex



- T – Toxoplasmosis
- O – Other infections
- R – Rubella
- C – Cytomegalovirus
- H – Herpes Simplex Virus

Other infections – Syphilis, Varicella Zooster Virus, Polio, Mumps etc.,

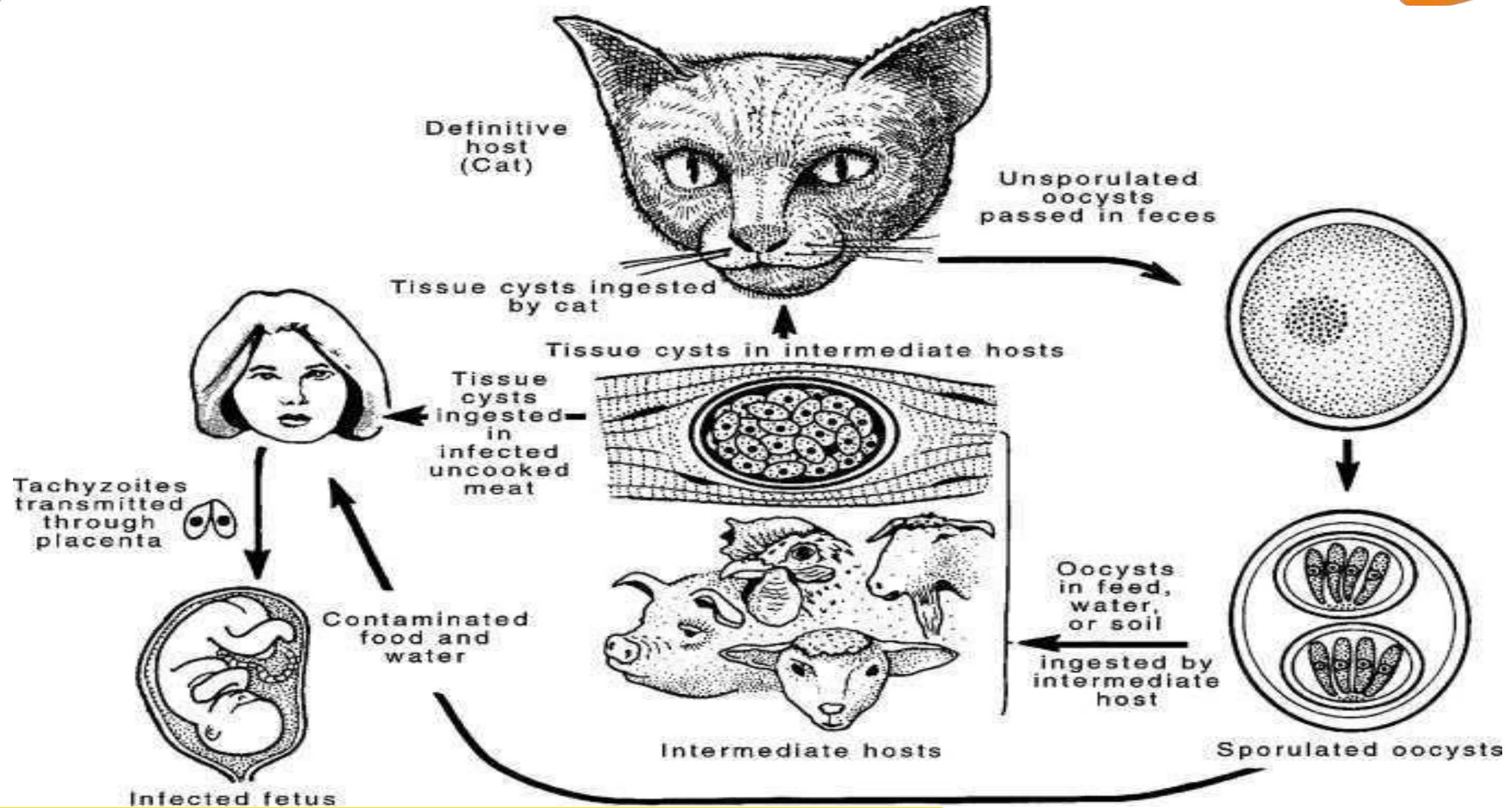


Toxoplasmosis



- It is caused by the protozoan intracellular parasite – **toxoplasma gondii**
- **Mode of transmission** – feco – oral route by eating infected raw cooked meat, or through contact with infected cat faeces
- Or through placenta
- Oocyte contaminated soil, salads, vegetables

Life cycle of Toxoplasmosis





Clinical Manifestations



- Affects 0.3 – 1% of pregnant women, with an approximately 60% transmission rate of fetus.
- Risk increases with gestation age
- **Primary maternal infection in pregnancy** Infection rate higher with infection in 3rd trimester.
Fetal death higher with infection in 1st trimester





Clinical Manifestations



- Prematurity
- Intrauterine growth restriction
- Jaundice
- Hepato-splenomegaly
- Myocarditis
- Pneumonitis
- Various rashes
- Anaemia, thrombocytopenia
- Abnormal CSF findings



Triad

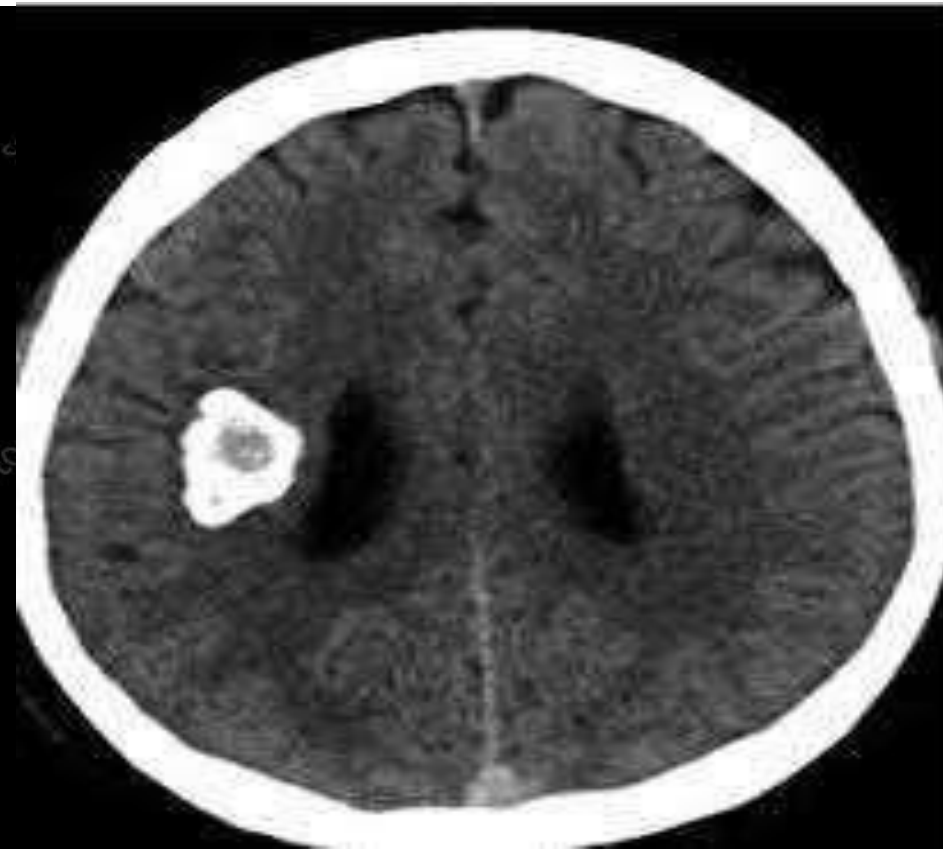
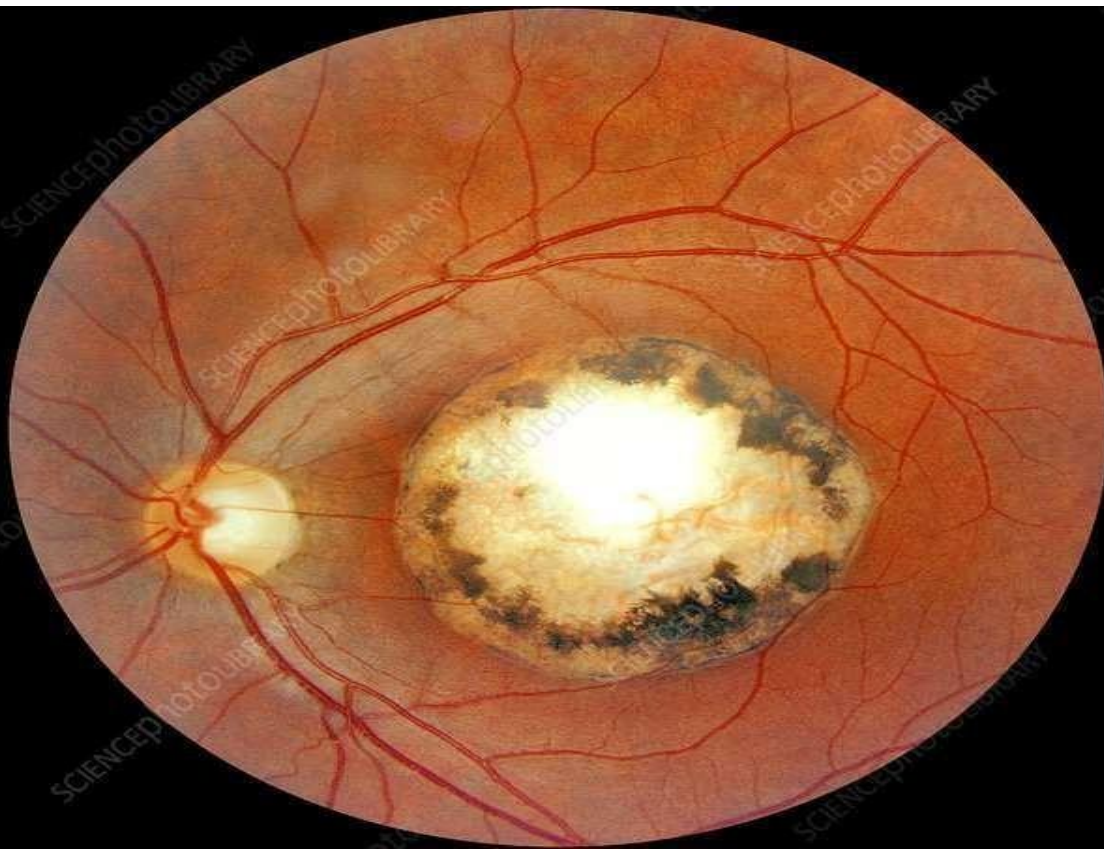


The classic triad of findings :

Chorioretinitis - inflammation of the choroid (thin pigmented vascular coat of the eye)

Hydrocephalus

Intracranial calcifications





Congenital rubella



- The classic features of syndrome produced by TORCH complex are seen in **congenital rubella**.

The features include:

- ocular defects, cardiac defects, CNS manifestations, sensorineural deafness, thrombocytopenia and hepato-splenomegaly



Signs and Symptoms



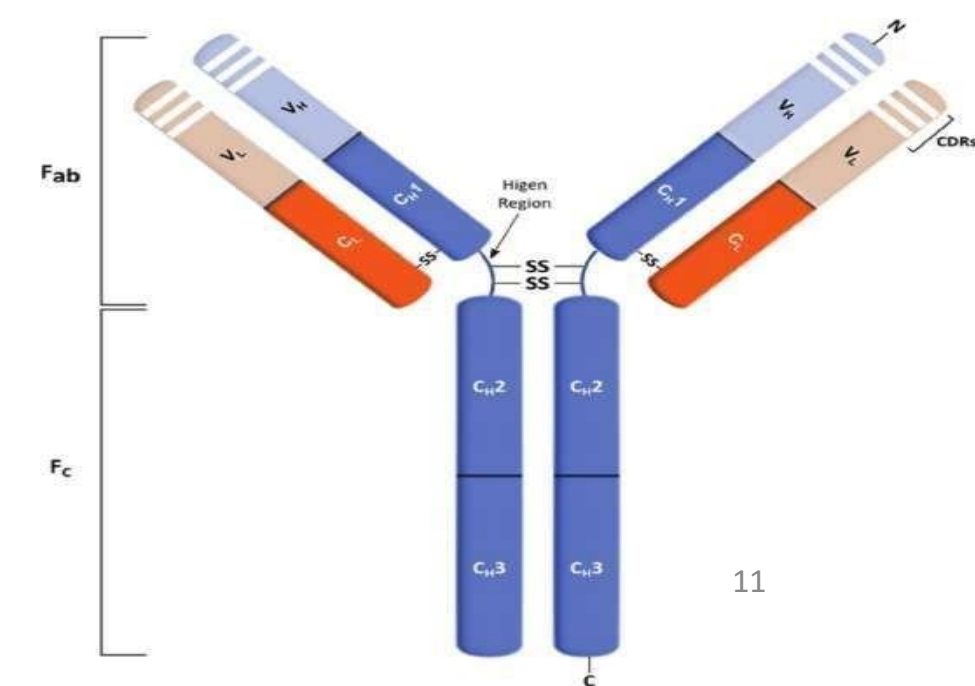
- Infected Pregnant women : usually no clinical manifestation.
- Although some may have a regional lymphadenopathy, or occasionally chorio-retinitis.
- Similarly, infected neonates are usually asymptomatic at birth.



Diagnosis



- Serial **IgG** measurement (for maternal infection)
- Amniotic fluid PCR (for fetal infection)
- Serologic testing, brain imaging, CSF analysis and ophthalmologic evaluation (for neonatal infection), and PCR testing of various body fluids or tissues





Treatment



- In PREGNANT WOMEN with an established recent infection, **SPIRAMYCIN** (3g daily in divided doses) should be given.
- In neonates : **Pyrimethamine**: 50mg twice daily for 2 days then 50mg daily. PLUS **Sulfadiazine**: 75mg/kg/daily in two divided doses for 2 days then 50mg/kg/twice daily PLUS **Folinic Acid**: 10-20mg daily



- **REFERENCE : Textbook of Pathology**
- **Author : Harsh Mohan**

Thank you