

Lecture 13



Toxoplasmosis & Other Blood Parasites

- Additional Notes
- Important
- Explanation
- Examples

TOXOPLASMOSIS

- common parasite for man and animals.
- The definitive **host is the CAT**.
- **Transmission of Infection:**
 - A. **Acquired**
 - ✓ Eating food contaminated with cat fecal matter, so man will ingest **OOCYSTS**
 - ✓ by ingestion **Cysts** of under cooked meat (nany type of meat)
 - ✓ Blood transfusion & organ transplant

B. **Congenital**

	Earlier in pregnancy	later in pregnancy
The risk of infected fetus:	Low	High
The severity of the disease	High	Low

A. **Reactivation of infection**

- ✓ Immunocompromised (**AIDS**)
- ✓ Immunosuppression (**drugs**)

▪ **Toxoplasma gondii :**

- ✓ Acute phase → **Tachyzoites**: rapidly dividing forms.
- ✓ Chronic phase → **Bradyzoites**: slowly dividing forms.

▪ Clinical picture:

- Adult
 - ✓ Asymptomatic (mostly)
 - ✓ Symptomatic (fever, chills, hepatitis, **retinochoroiditis**, myocarditis, encephalomyelitis.)
- Intrauterine (fever, pneumonia, **hydrocephalus**, microcephaly)
- In Pregnancy
 - ✓ Abortion
 - ✓ Congenital Toxoplasmosis (**Hydrocephalus** , **Intracranial calcification**, **Chorioretinitis**)
 - ✓ Subclinical infection: no symptoms at birth
 - ✓ Late onset symptoms → common in the eyes: Chorioretinitis
 - ✓ No symptoms at all

▪ Serodiagnosis

IgG antibody

→ Negative → not infected

→ Positive → IgM → Negative → infected over 2 years ago

→ Positive → **IgG avidity** → high → infected in the previous 12 weeks

→ Low → recent infection possible

▪ Treatment:

- ✓ Sulfonamides
- ✓ pyrimethamine
- ✓ Spiramycin (used in France)

LYMPHATIC FILARIASIS

Disease	Caused by	adults in	microfilariae	Diagnosis	Pathology
Lymphatic filariasis	<i>Wuchereria bancrofti</i>	Lymphatics	Blood	<ul style="list-style-type: none"> • Blood film → detect microfilariae • Knott's method 	<ul style="list-style-type: none"> • Acute: lymphadenitis lymphatic varices • Chronic: lymphedema, hydrocele, chyluria.
Loiasis	Loa loa	subcutaneous & subconjunctival tissues	Blood	detection of microfilariae in blood film.	<ul style="list-style-type: none"> • Calabar swellings • conjunctivitis
Onchocerciasis	Onchocerca volvulus	subcutaneous swellings	mainly in skin, eyes	skin snip to identify microfilariae	caused by microfilariae in: <ul style="list-style-type: none"> • Skin: dermatitis • Lymph nodes: lymphadenopathy • Eyes: blindness (River blindness)

- **Treatment:**
 - ✓ Diethylcarbamazine (DEC)
 - ✓ Ivermectin