Trematodes

Lung and liver flukes
Flukes

- Liver flukes: *Clonorchis sinensis, Fasciola hepatica*
- Respiratory flukes: *Paragonimus* spp.
- Retroauricular cysts: *Poikilorchis congolensis*
- Transient eggs: *Dicrocoelium* spp.
**Clonorchis sinensis**

Small egg in stool. One pole, provided with an operculum, is slightly constricted. Length: 30 μm (Unstained)
Human infections occur but most of the time it is a false parasitosis due to the ingestion of animal (sheep) liver. An asymmetric trematode egg with a thick brownish shell in stool. One pole has an operculum. Length: 40µm (Unstained).
**Fascioliasis**
*(Fasciola hepatica)*

1. **Unembryonated eggs passed in feces**
2. **Embryonated eggs in water**
3. **Miracidia hatch, penetrate snail**
4. **Snail**
   - **4a** Sporocysts
   - **4b** Rediae
   - **4c** Cercariae
   - in snail tissue
5. **Free-swimming cercariae encyst on water plants**
6. **Metacercariae on water plant ingested by human, sheep, or cattle**
7. **Excyst in duodenum**
8. **Adults in hepatic biliary ducts**

Courtesy CDC

- **a** = Infective Stage
- **d** = Diagnostic Stage
Fasciola hepatica

Egg in faeces. Is really « egg » shaped. The operculum is visible at the bottom half. Size: 140 to 150 μm (Unstained).
Fasciola hepatica

Egg shaped egg. Size: 140 to 150 μm (Unstained).
**Paragonimus spp.**

- A family of tropical lung flukes
- Over 20 million people are infected
- This infection is often confused diagnostically with tuberculosis
- Search for eggs in sputum or stool

WHO, 2001
Paragonimus sp.

Egg in faeces. Ovoid, brown, asymmetric egg with a thick shell. One pole is distinctly operculated. 80 to 120 μm (Unstained).
Poikilorchis sp.

Egg in pus of an abces. A few cases were reported from Central Africa. Size: 65 to 70 μm (Unstained).