

Parasitic gastrointestinal infections

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Klinika infekčních chorob LF MU a FN Brno

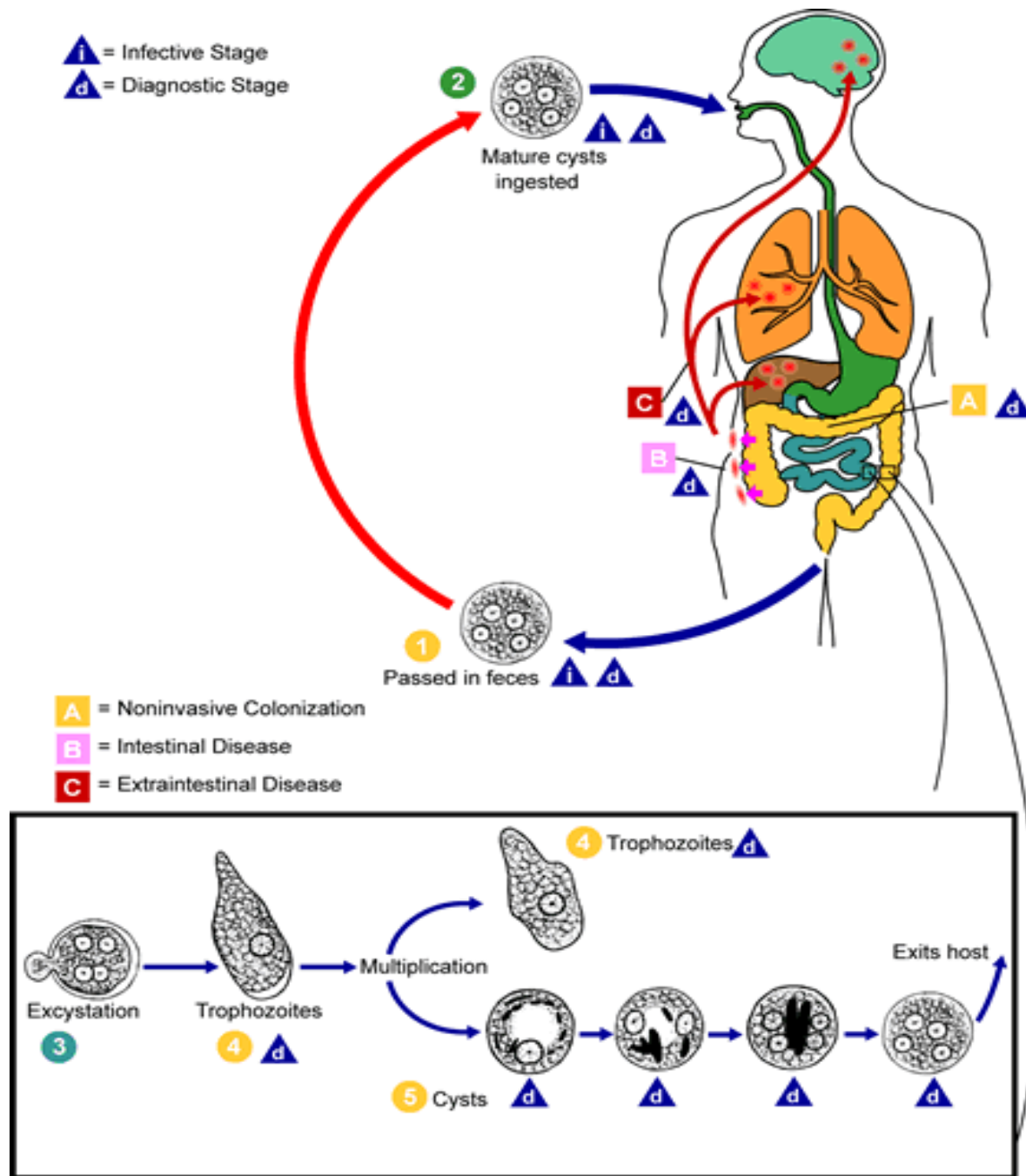
Parasitic infection of GI tract

- protozoal
- helminthic
- fungal

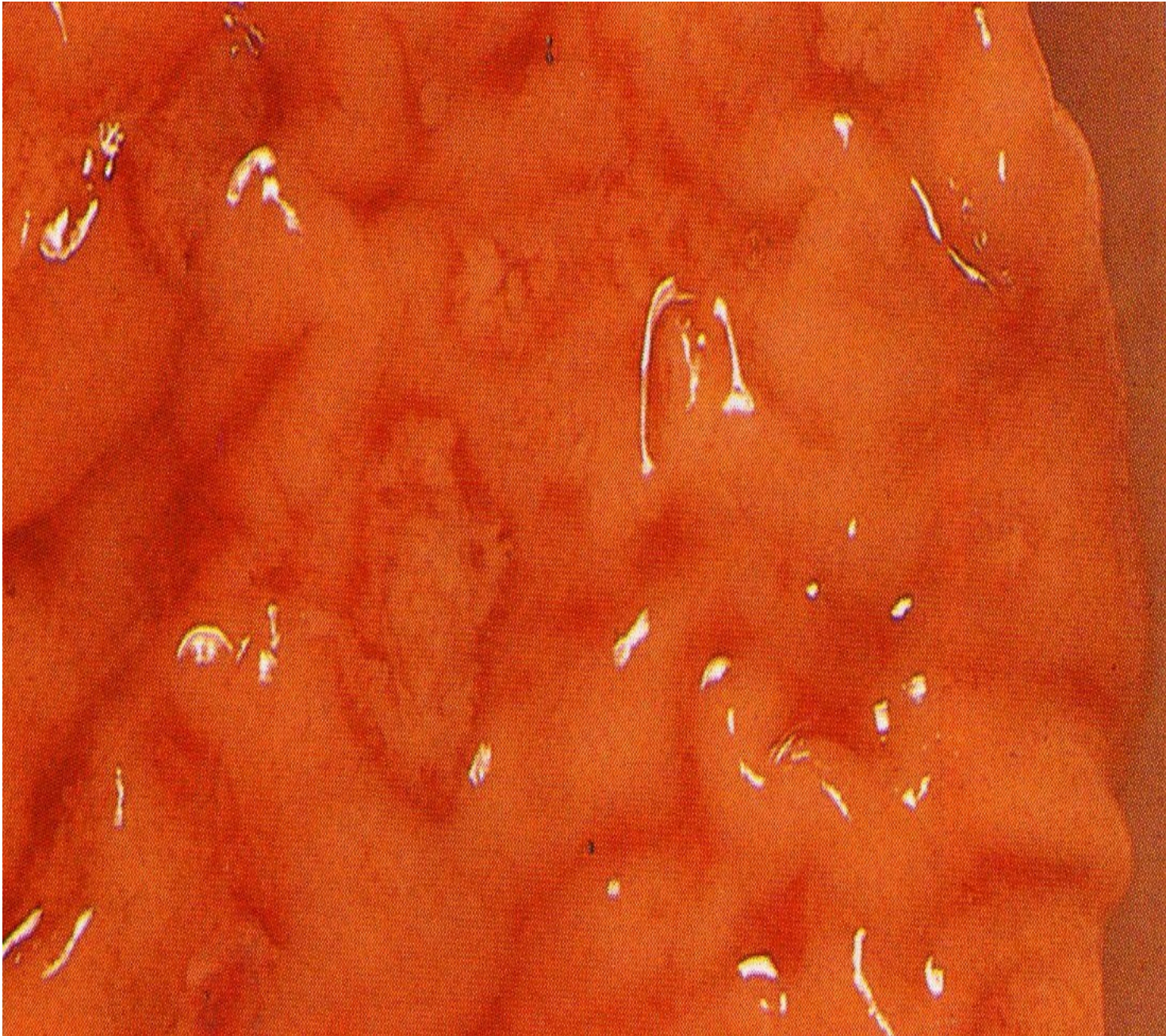
Protozoal infections

- **Human**
- Amebiasis (*Entamoeba histolytica*)
- Lambliasis = giardiasis (*L.*, *G. intestinalis*)
- **Zoonotic**
- cryptosporidiosis (*Cryptosporidium parvum*)
- isosporosis (*Isospora belli*)
- microsporidiosis (*Enterocytozoon bineusi*)
- cyclosporiasis (*Cyclospora cayetanensis*)

Amebiasis



Amebic colitis



Amebic
abscess



CT – day 0

Amebic
abscess



CT – drainage of 2 abscesses – day 2

Map 3
150dB/C3
Persist Med
Fr Rate Med
2D Opt:Gen

ATL

D X

+

5.76cm

US - day 0

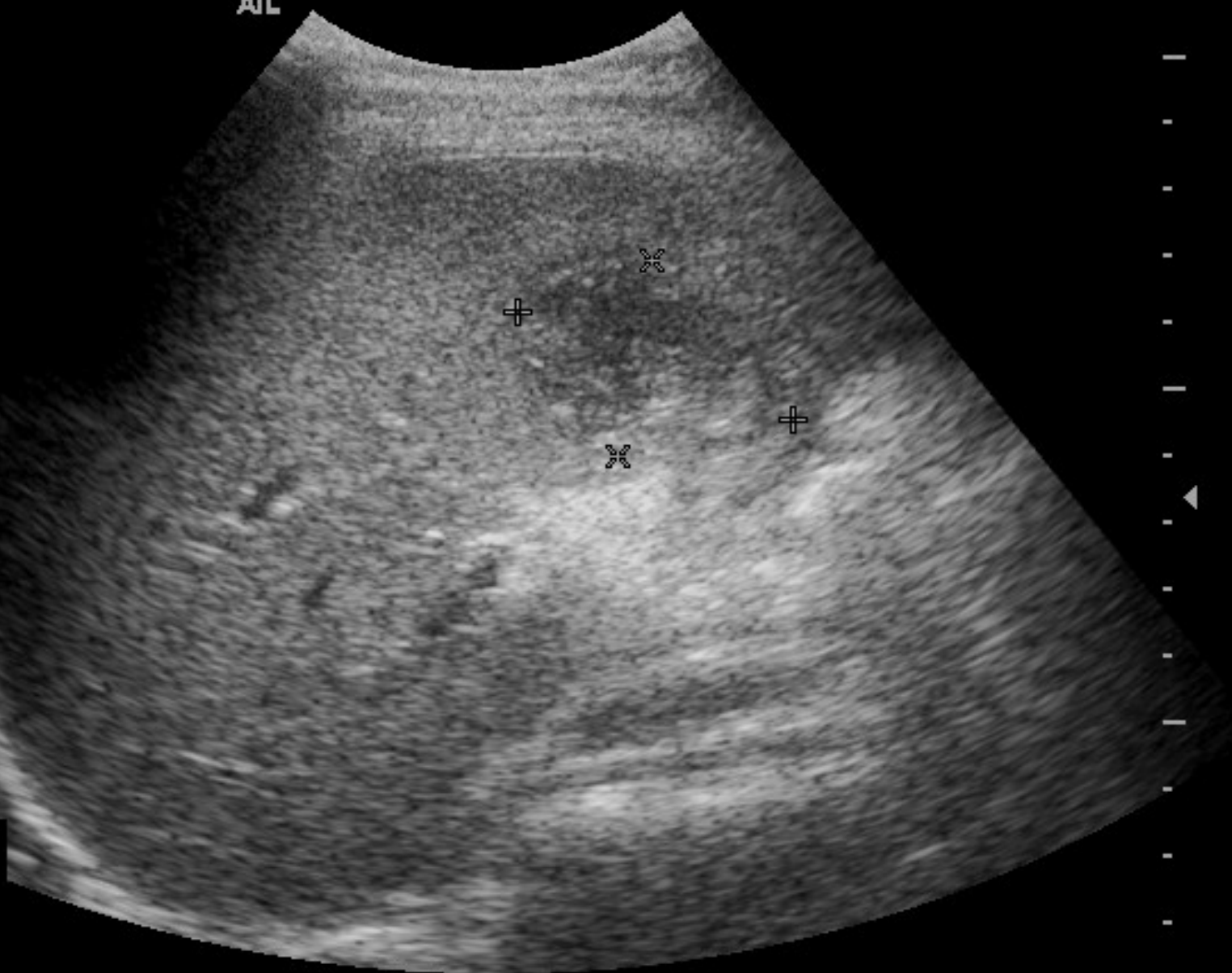


Map 3
150dB/C3
Persist Med
Fr Rate Med
2D Opt:Gen

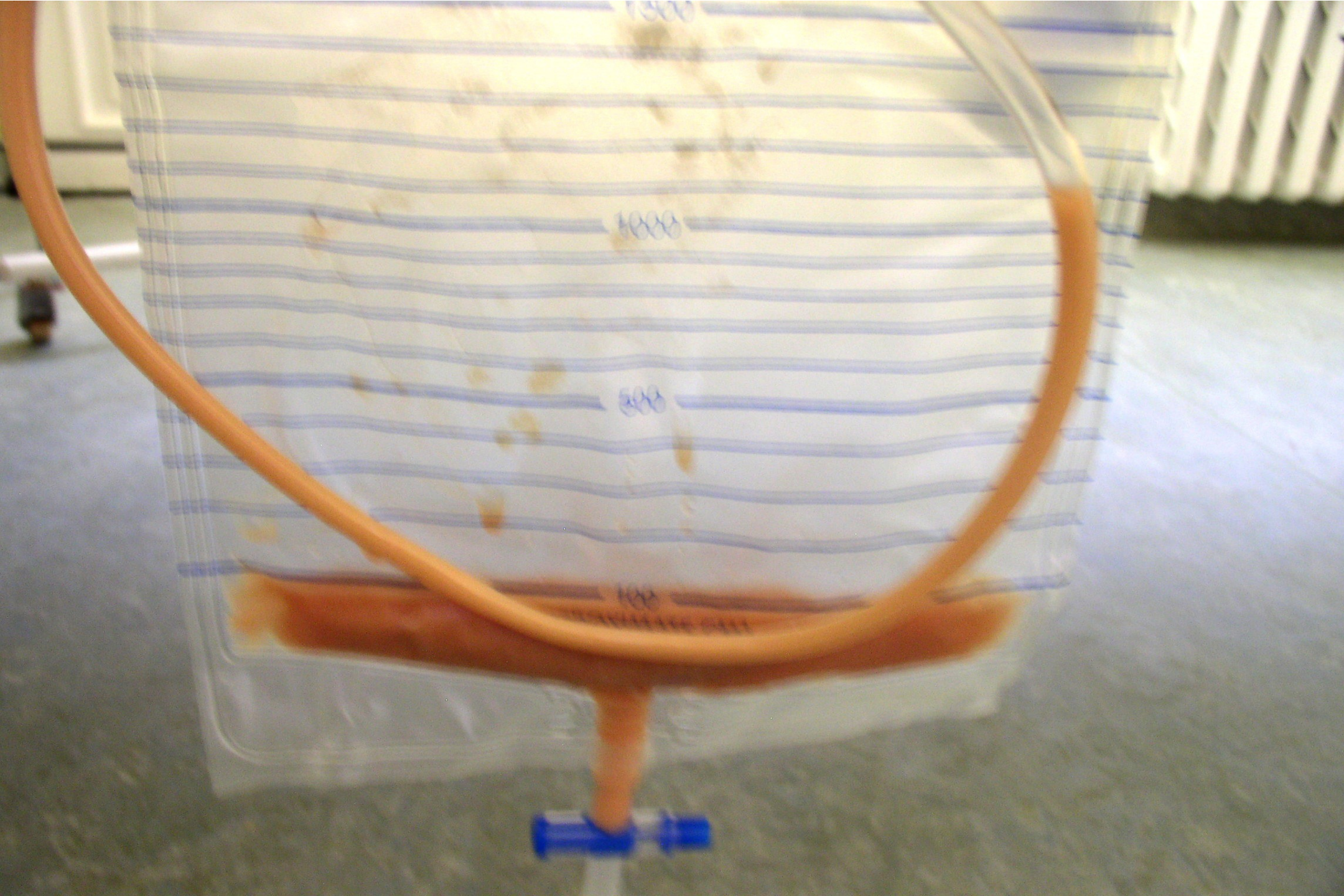
ATL

+ 4.23cm
× 2.98cm

US – day 5





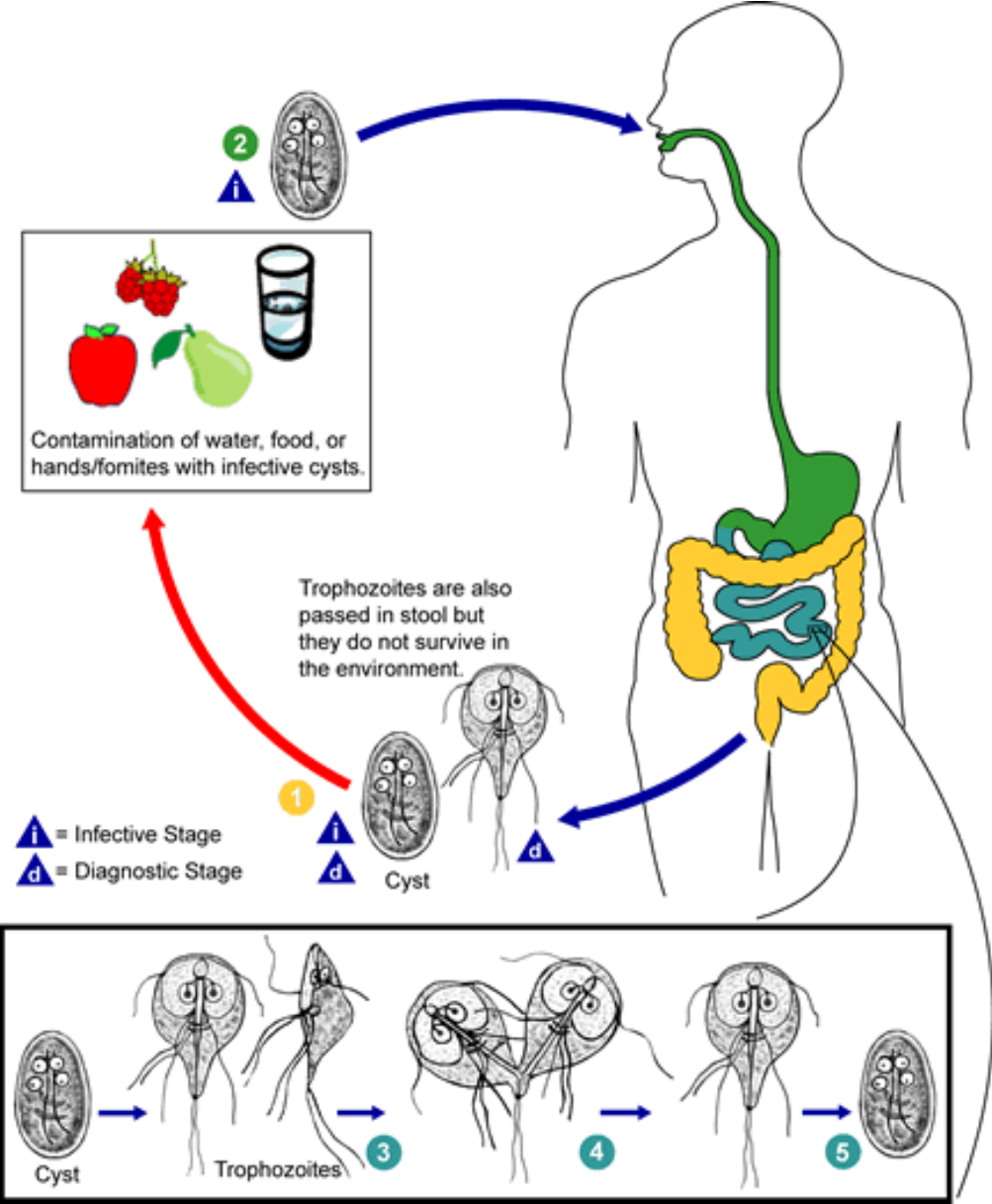




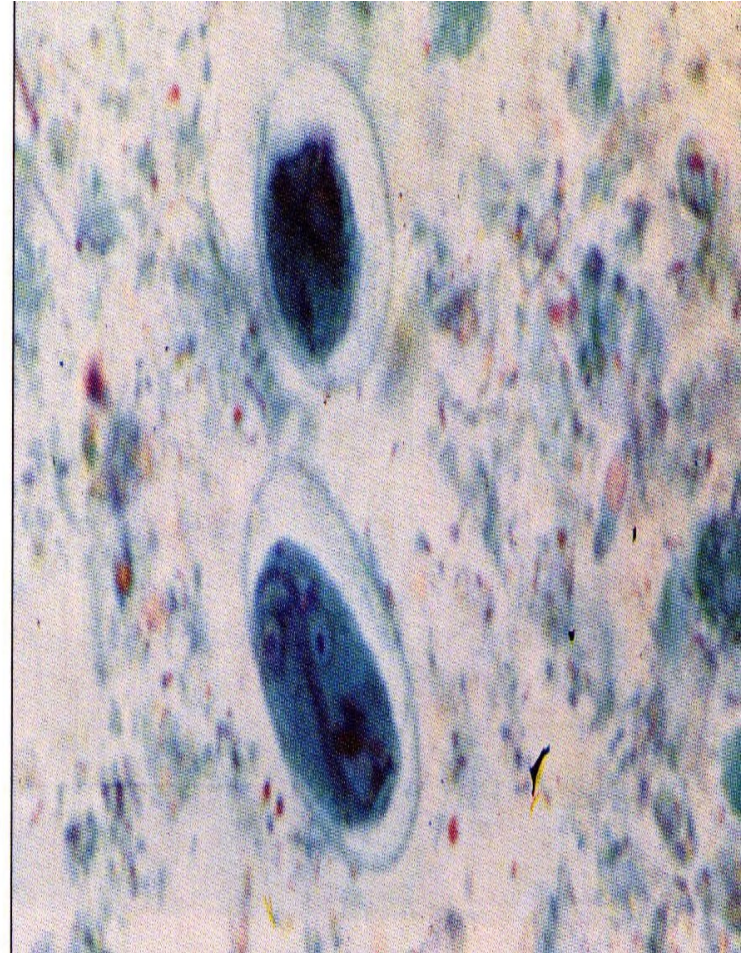
Amebic abscess –
transcutaneous puncture



Lambliasis, girardiasis



Lamblasis
microscopy



Lambliasis
scan



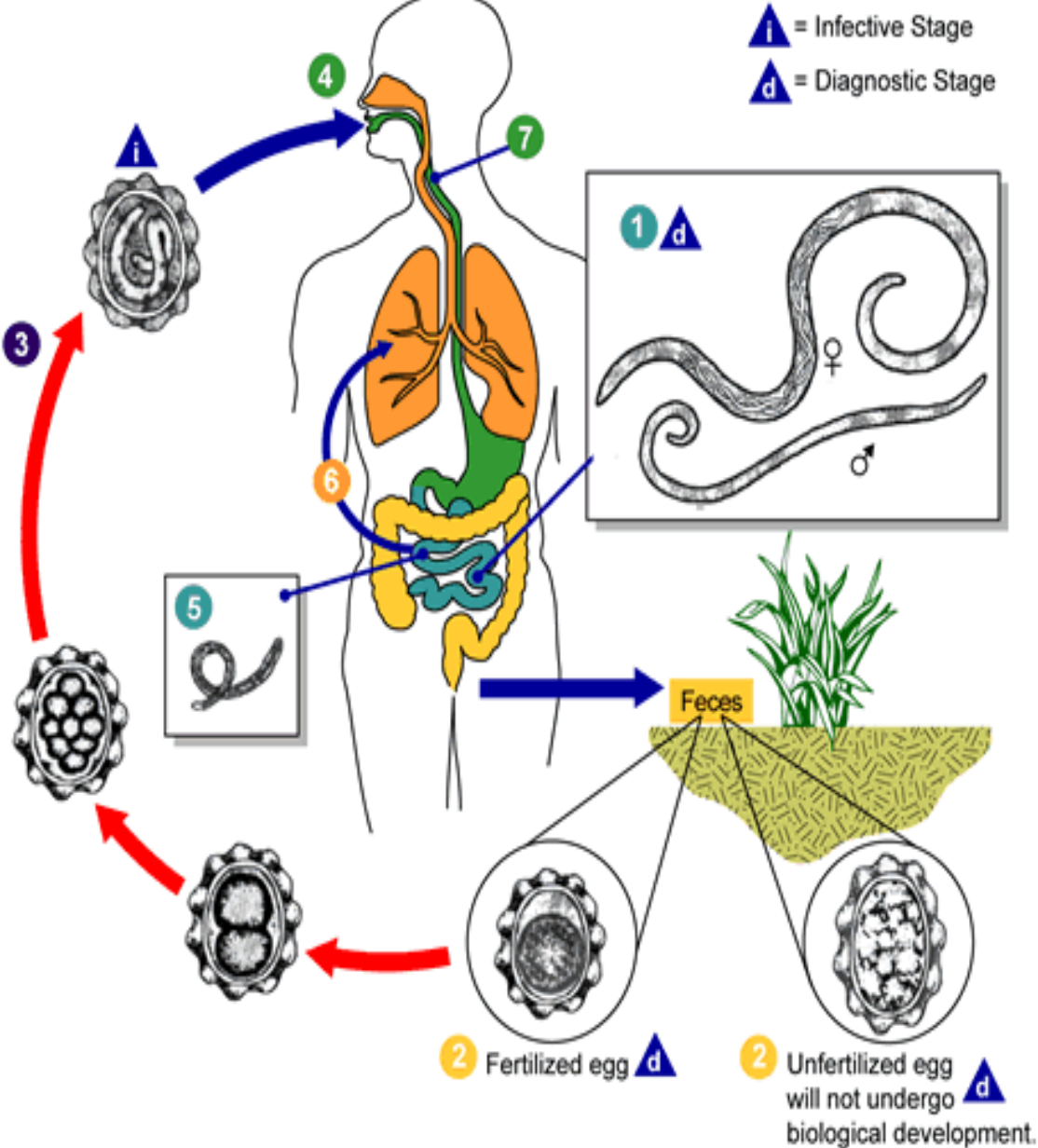
Helminthic GI infections

- **Roundworms (Nematodes)** - ascariasis, enterobiosis=oxyuriasis, trichuriasis
- **Tapeworms (Cestodes)** - teniosis, diphylobotriosis, hymenolepsiosis, echinococcosis, alveococcosis
- **Flukes (Trematodes)** - schistosomosis

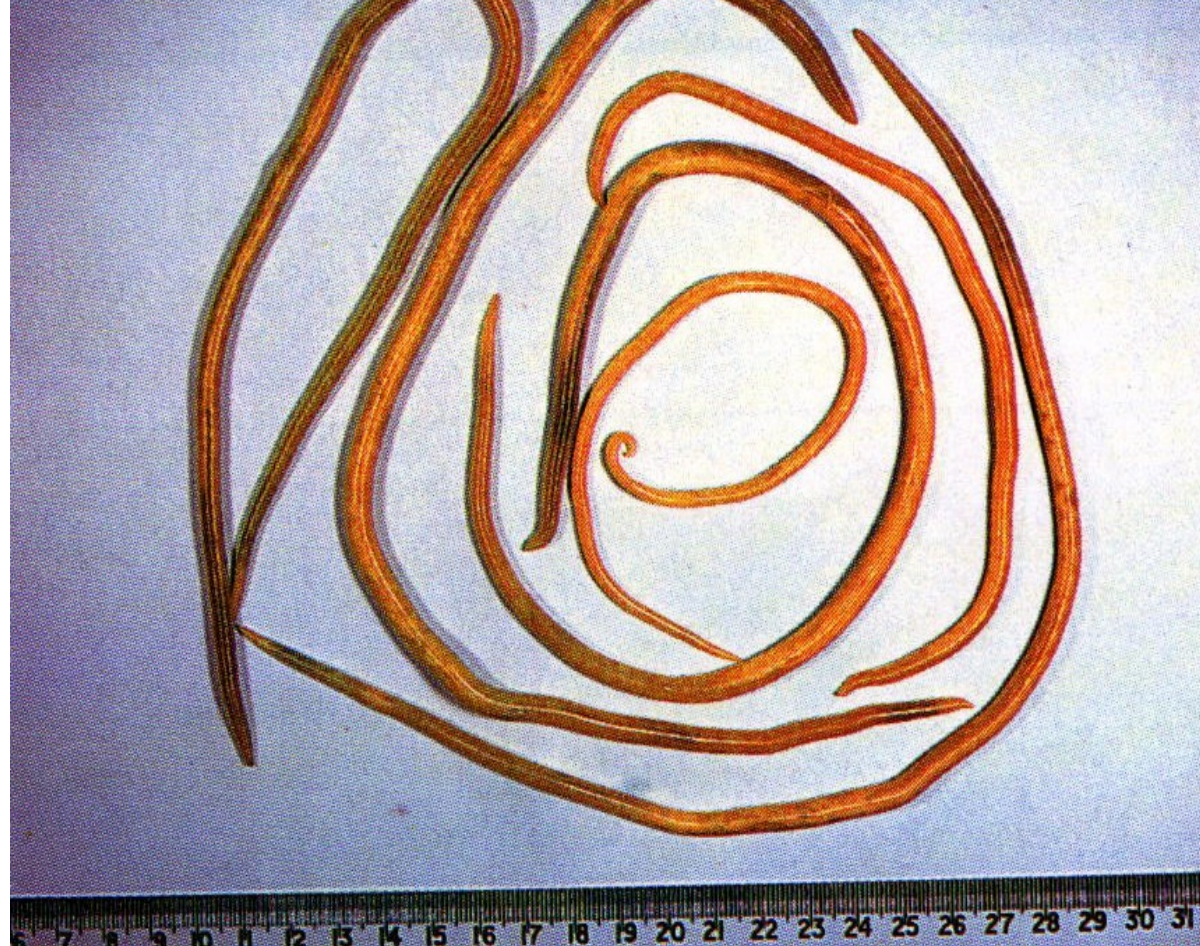
Roundworms (Nematodes)

- *Ascaris lumbricoides*
- *Enterobius, Oxyuris vermicularis*
- *Trichuris trichiura*

Ascariosis



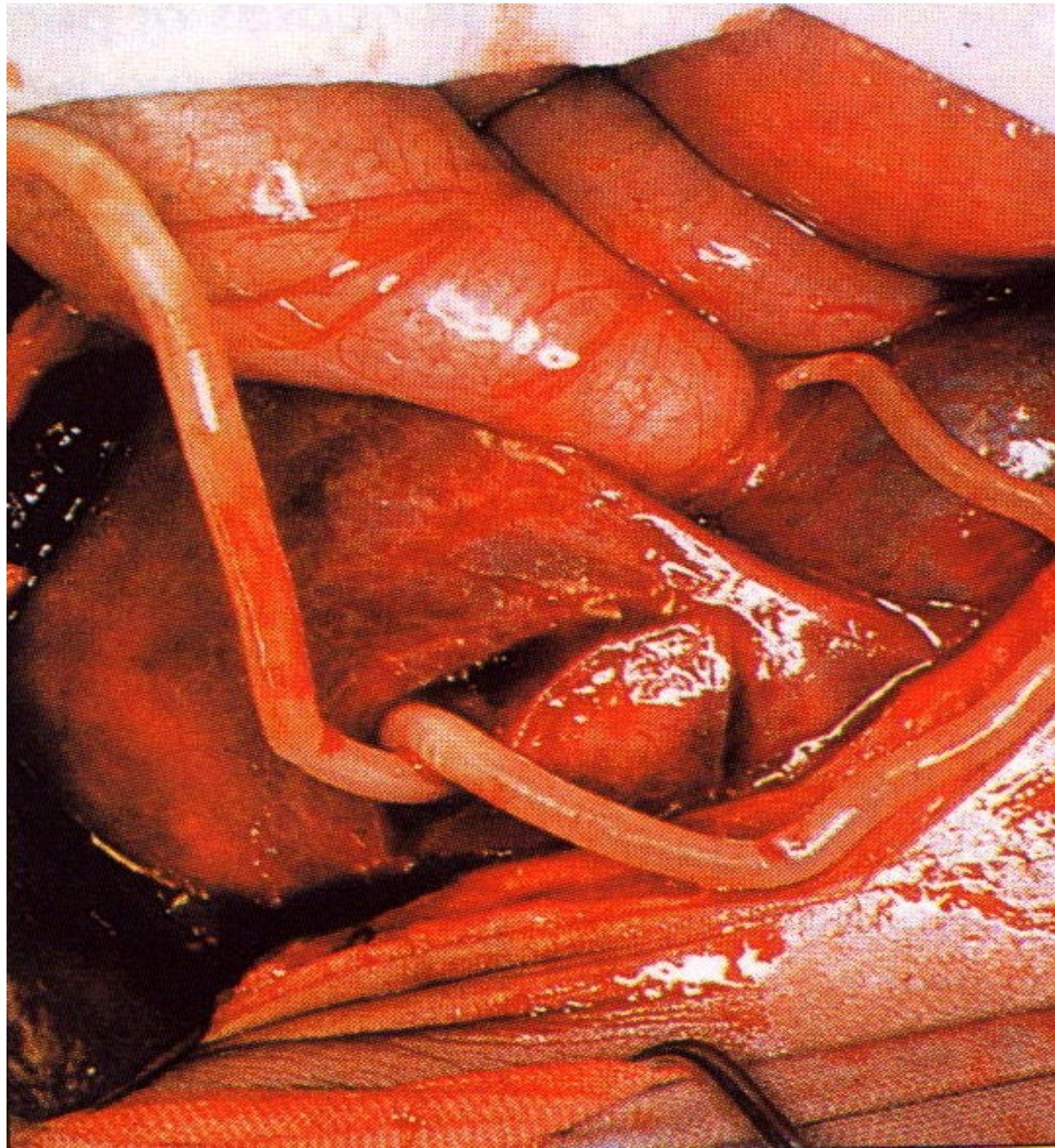
Ascaris lubricoides



Differential diagnosis: earthworm
- reproductive band (hermaphrodite)
- round terminations

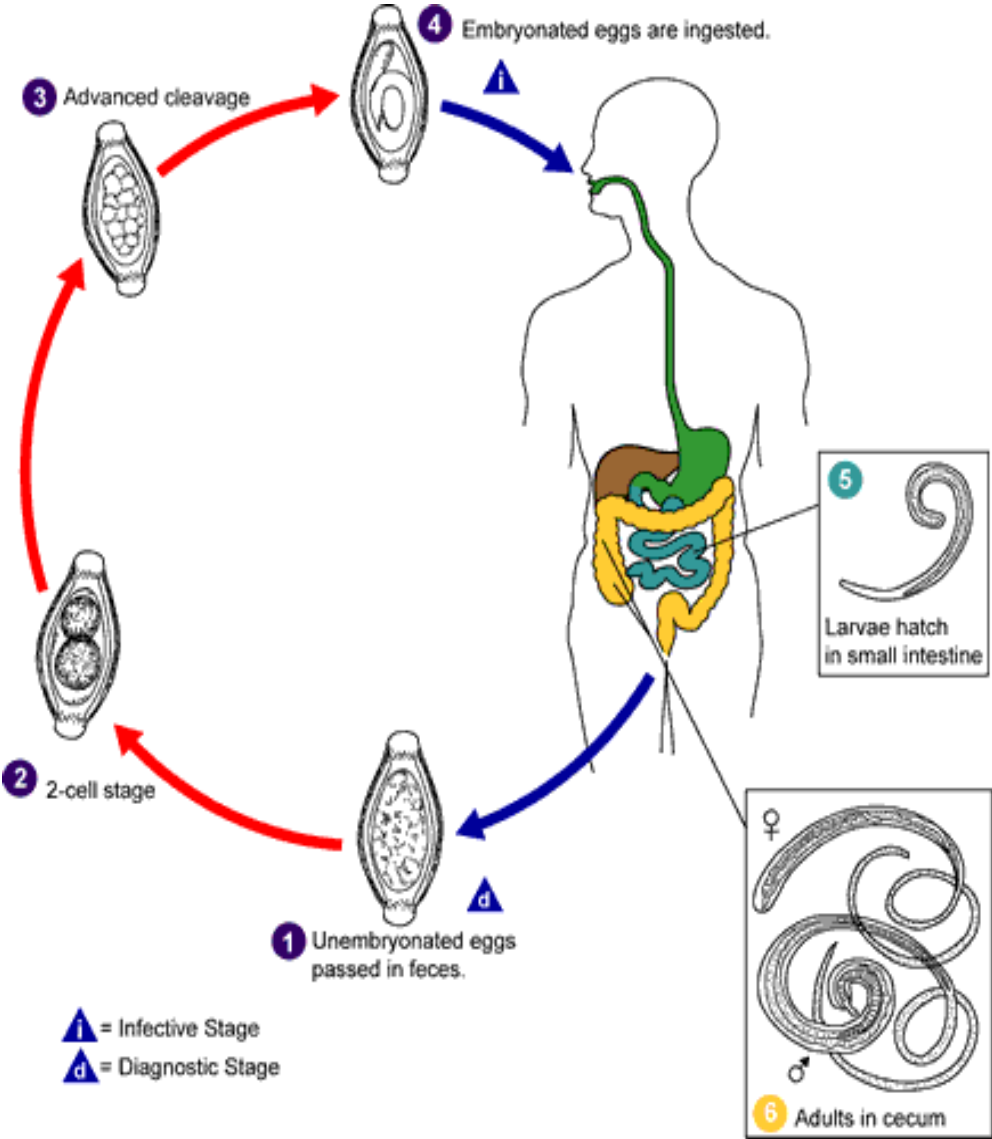


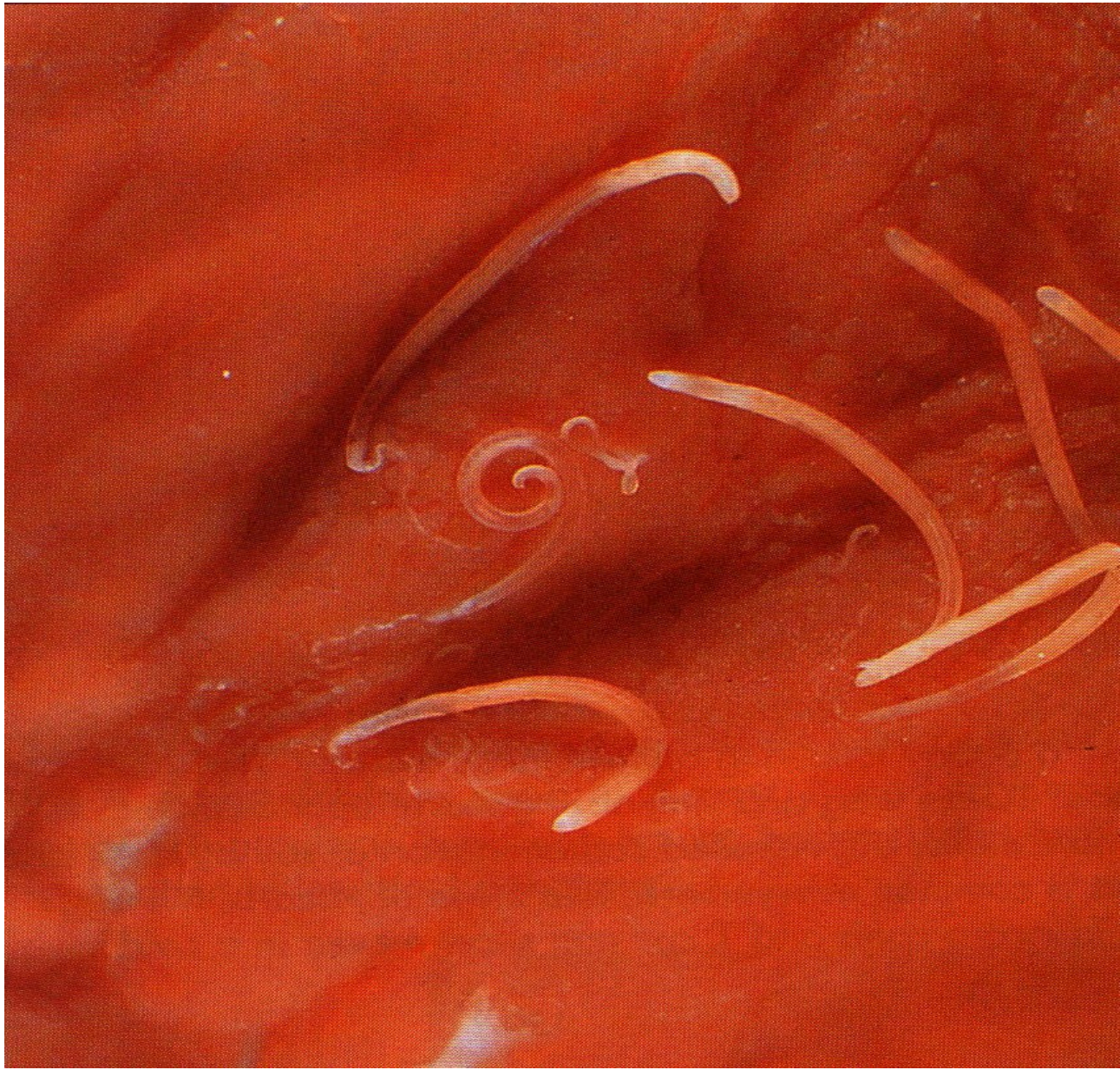


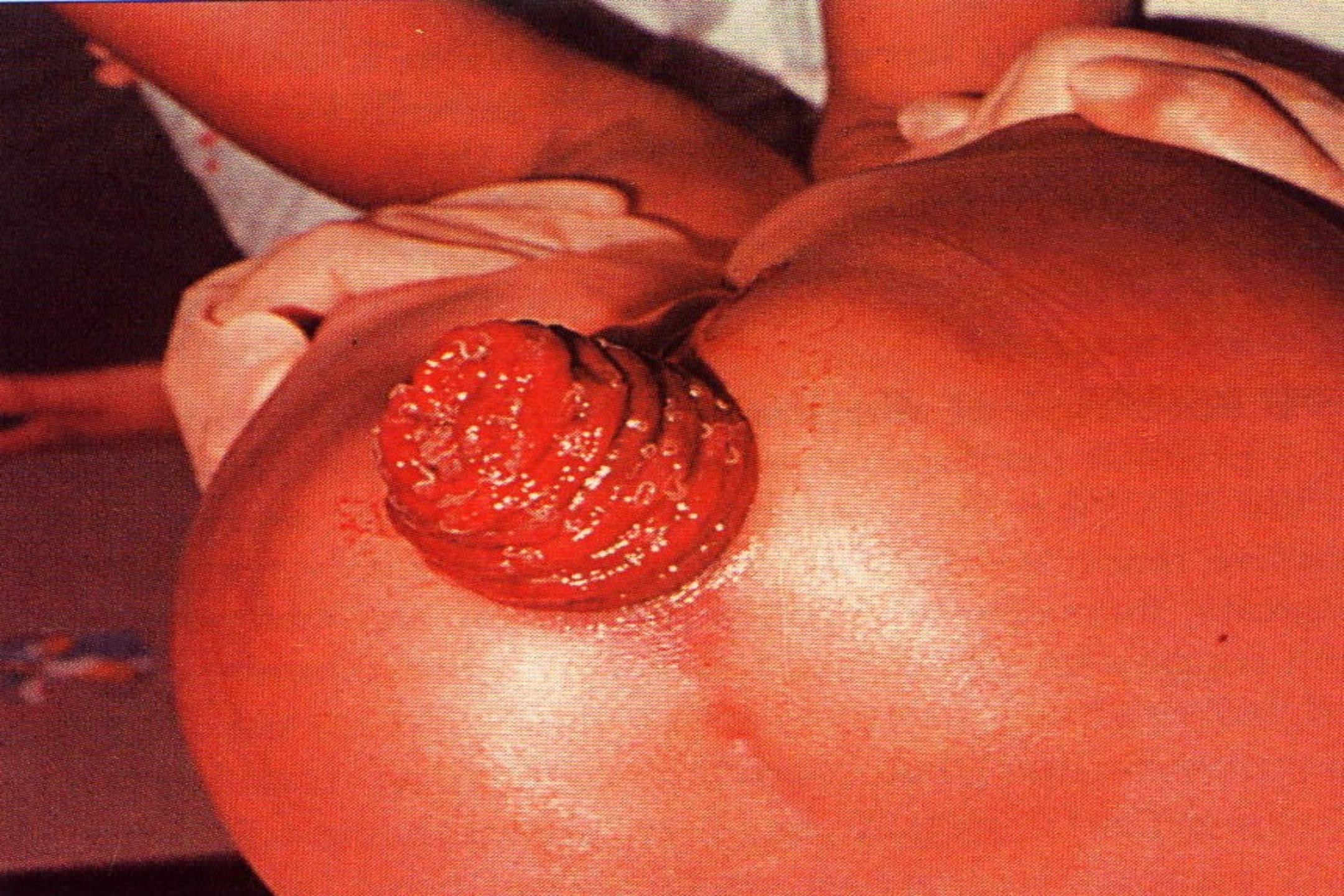




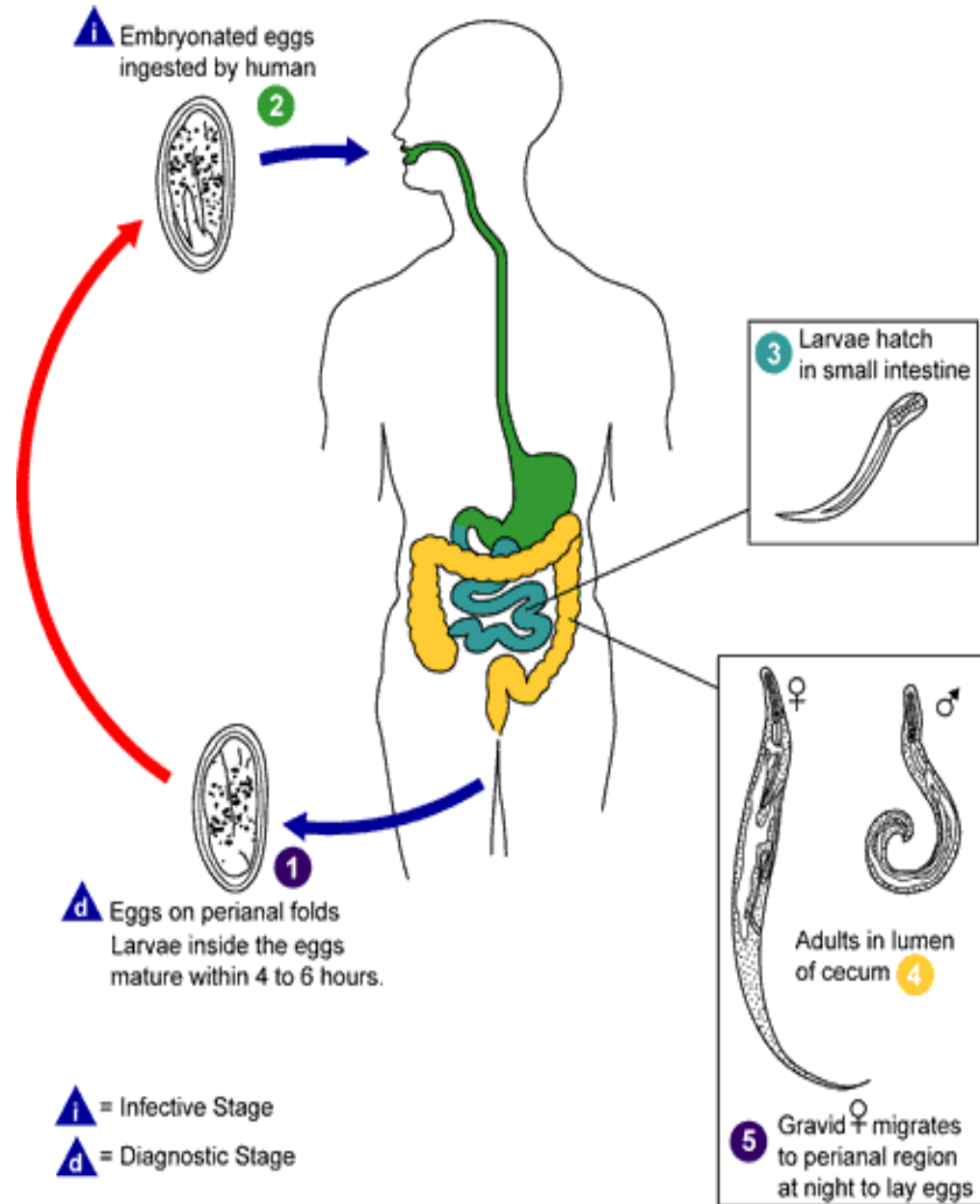
Trichuriasis



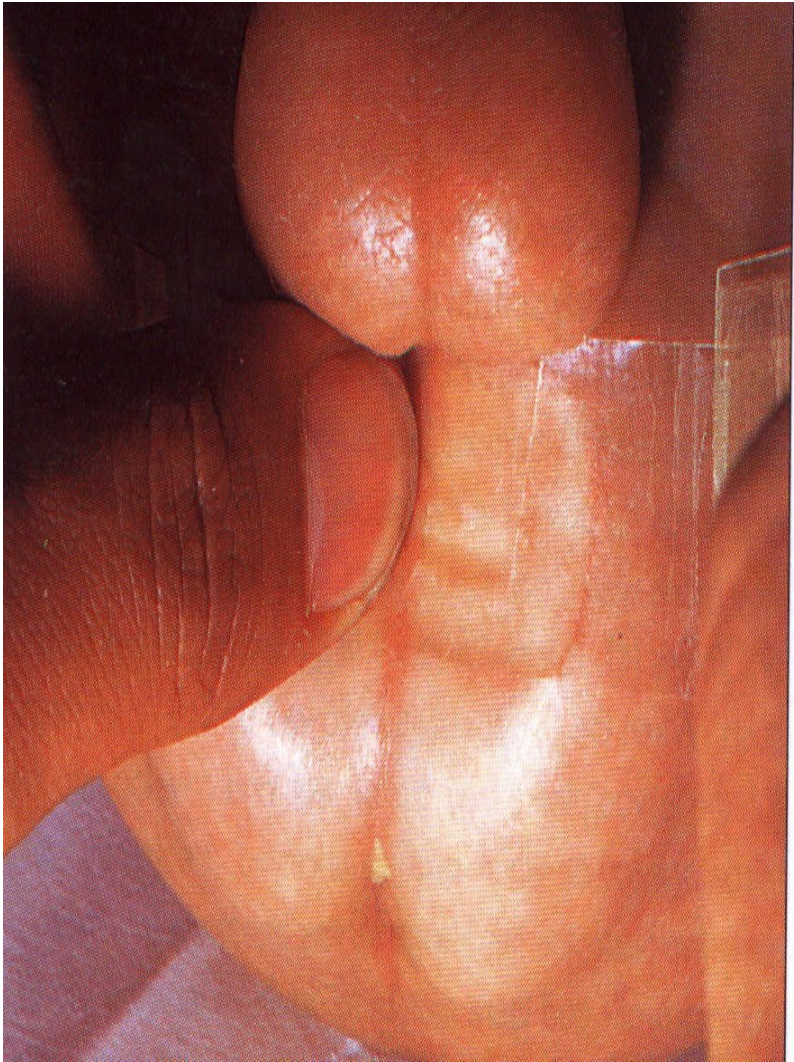




Enterobiosis, oxyuriasis



**Enterobios
oxyuriasis**



Tapeworms (Cestodes)

- **Man as final host**
- *Taenia saginata*
- *Taenia solium*
- *Diphyllobotrium latum*, *D. pacificum*
- *Hymenolepsis nana*

- **Animal as final host**
- *Echinococcus granulosus*
- *Echinococcus (Alveococcus) multilocularis*

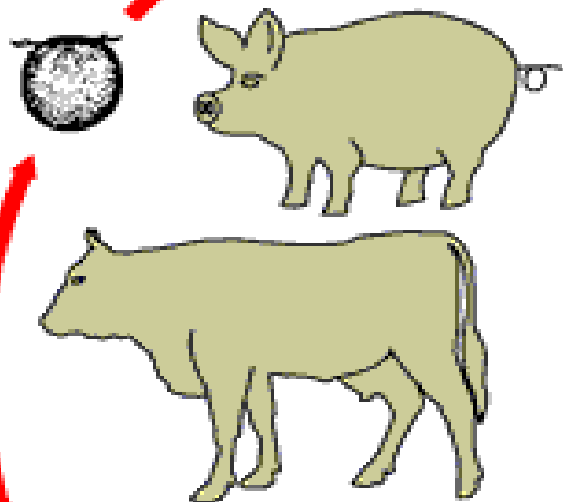
i Oncospheres develop into cysticerci in muscle



4 Humans infected by ingesting raw or undercooked infected meat

Oncospheres hatch, penetrate intestinal wall, and circulate to musculature

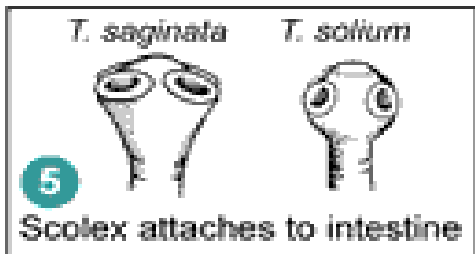
3



2

Cattle (*T. saginata*) and pigs (*T. solium*) become infected by ingesting vegetation contaminated by eggs or gravid proglottids

Taenia saginata
Taenia solium



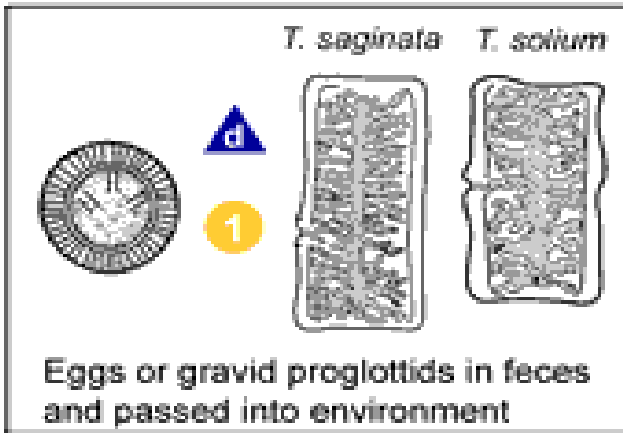
5

Scolex attaches to intestine



6

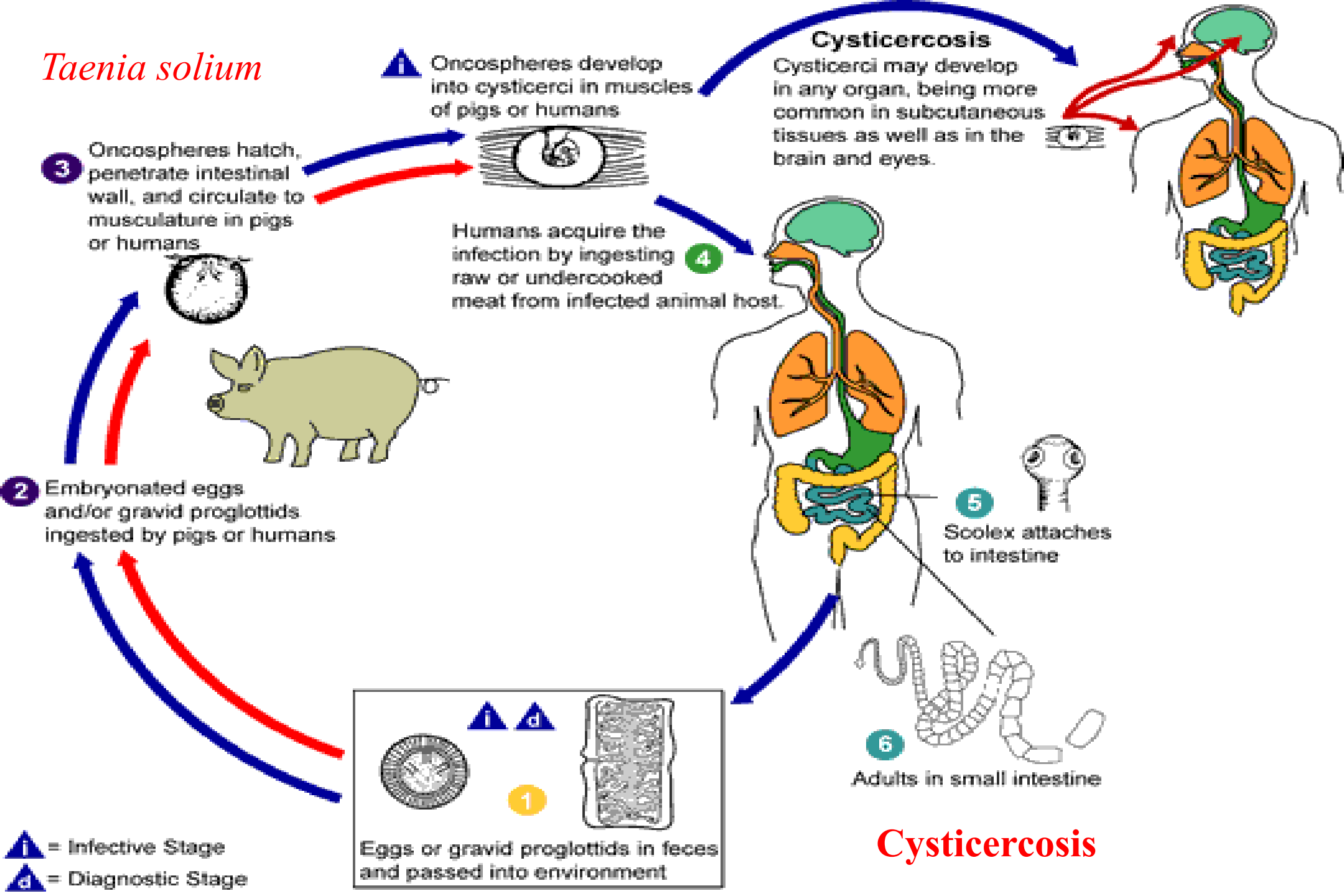
Adults in small intestine



i = Infective Stage
d = Diagnostic Stage

Taeniosis

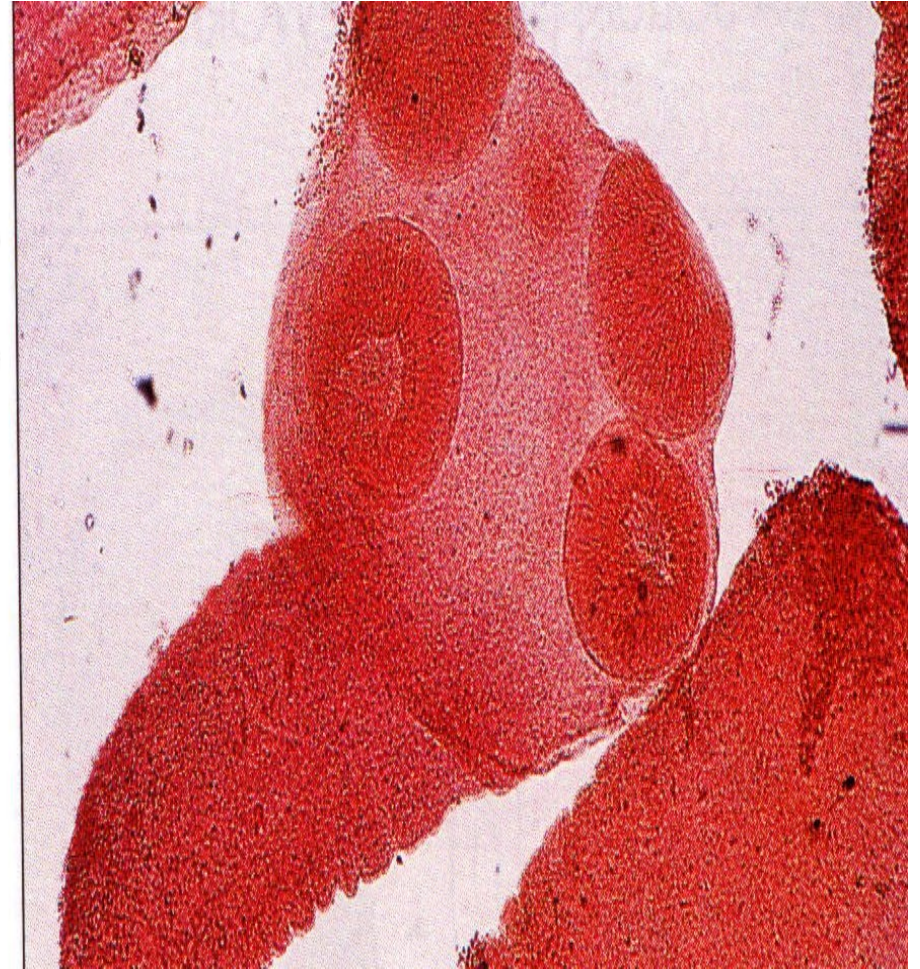
Taenia solium



Taenia solium



Taenia saginata



Taenia solium



Taenia saginata



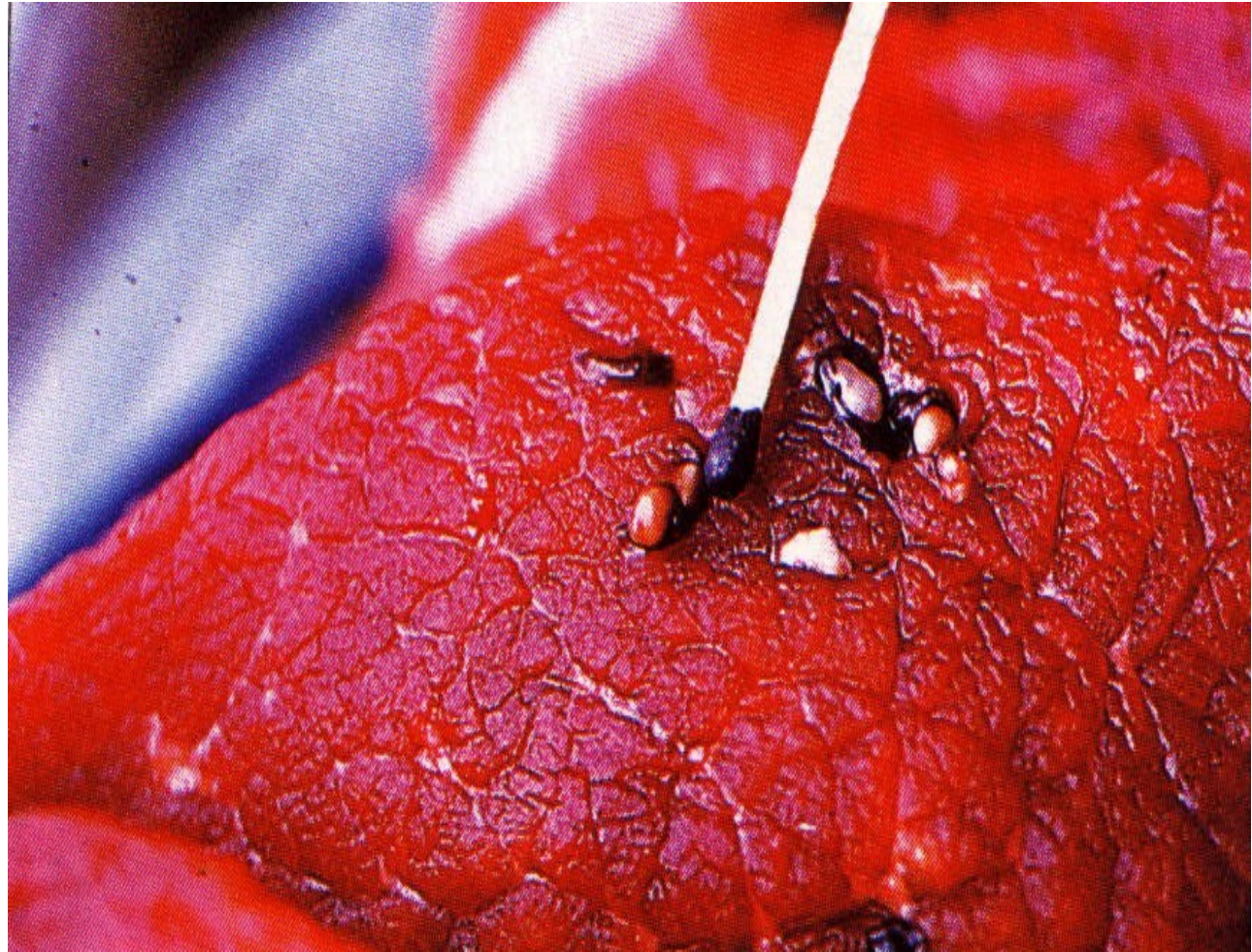
Cysticercosis (pig)



Cysticercosis (man)

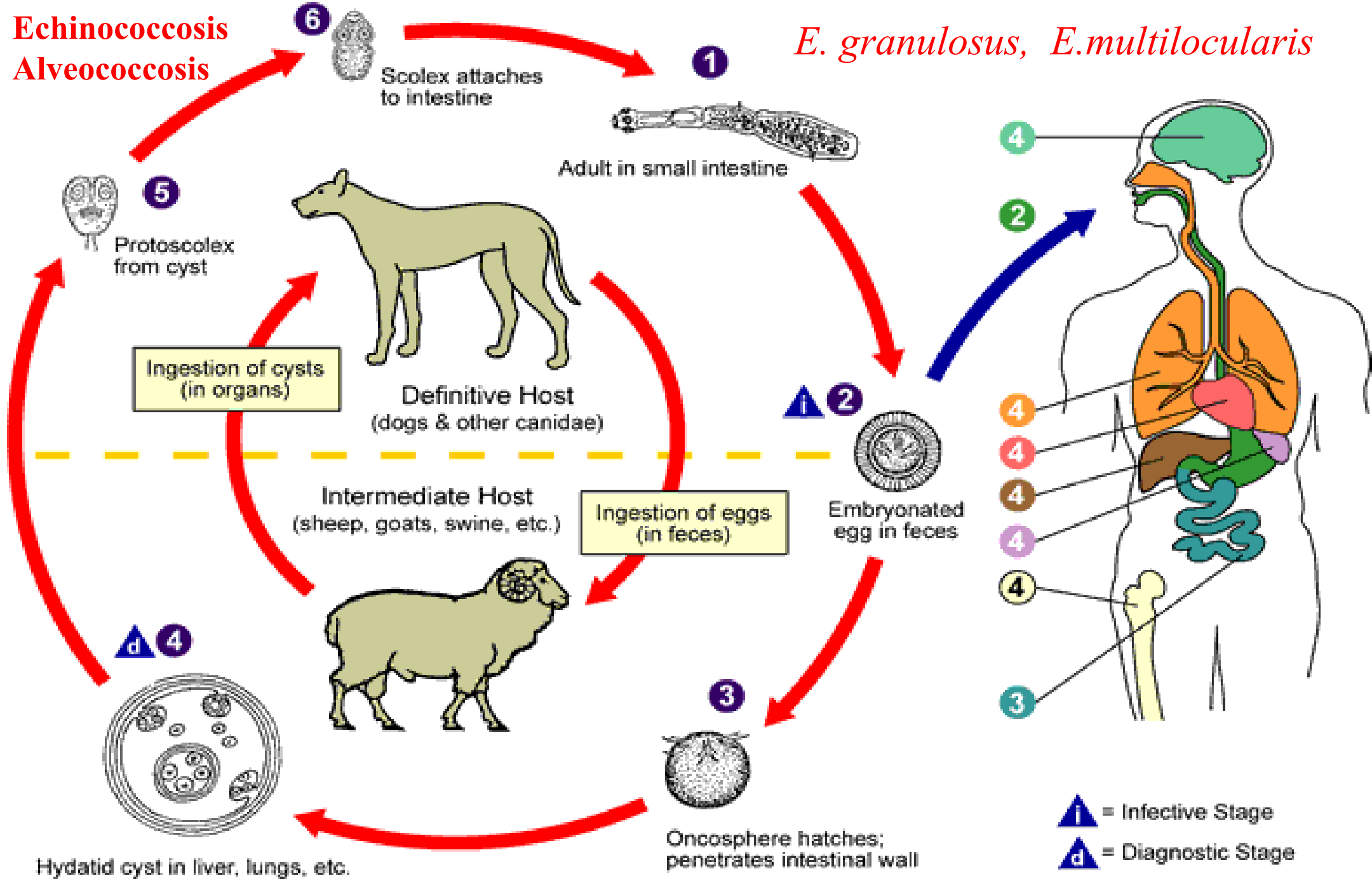


Cysticercosis (cow)



Echinococcosis
Alveococcosis

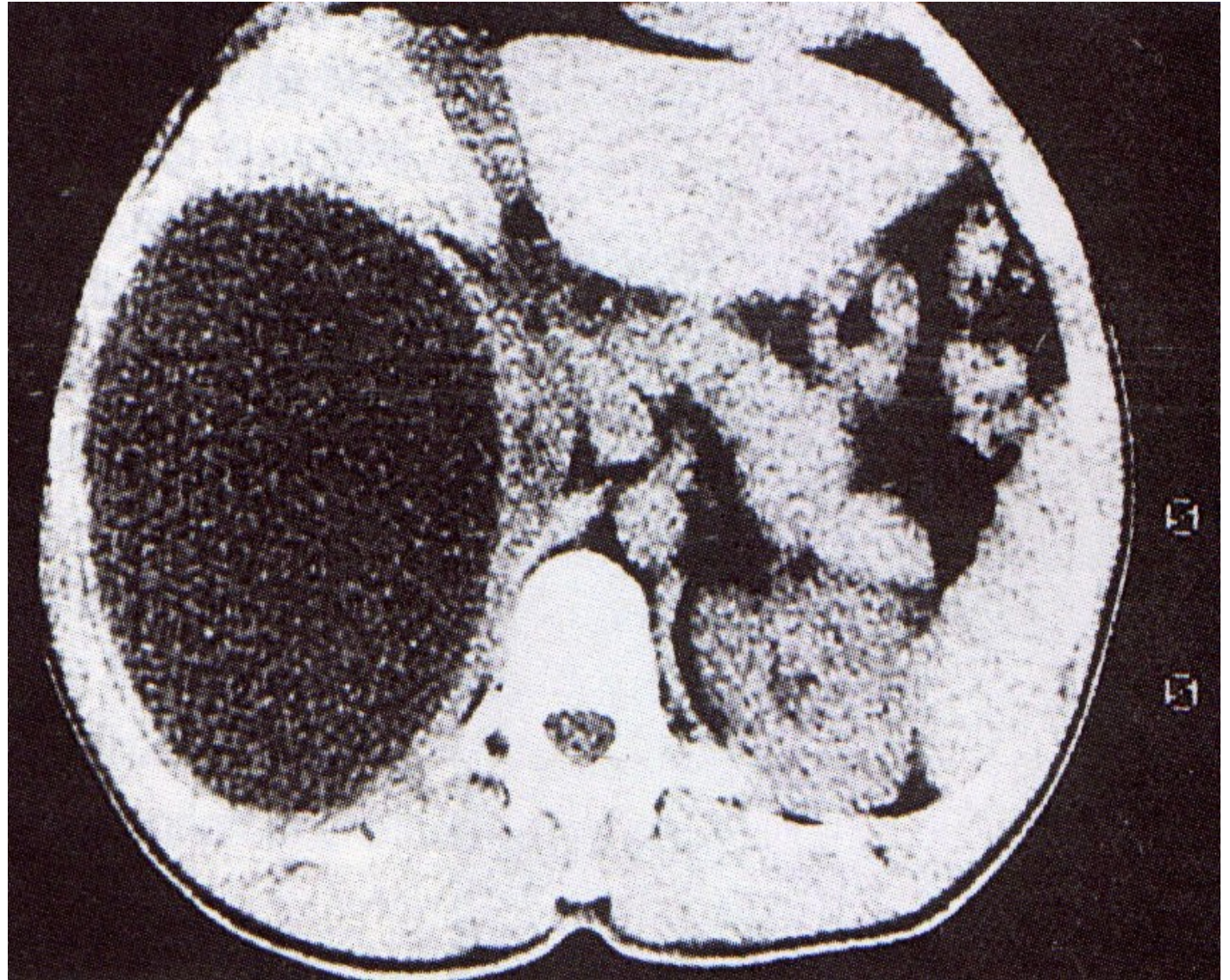
E. granulosus, E. multilocularis



Echinococcus
granulosus
(dog)



*Echinococcus
granulosus* – liver cysts
(man)



*Echinococcus
granulosus* – liver cysts
(man)





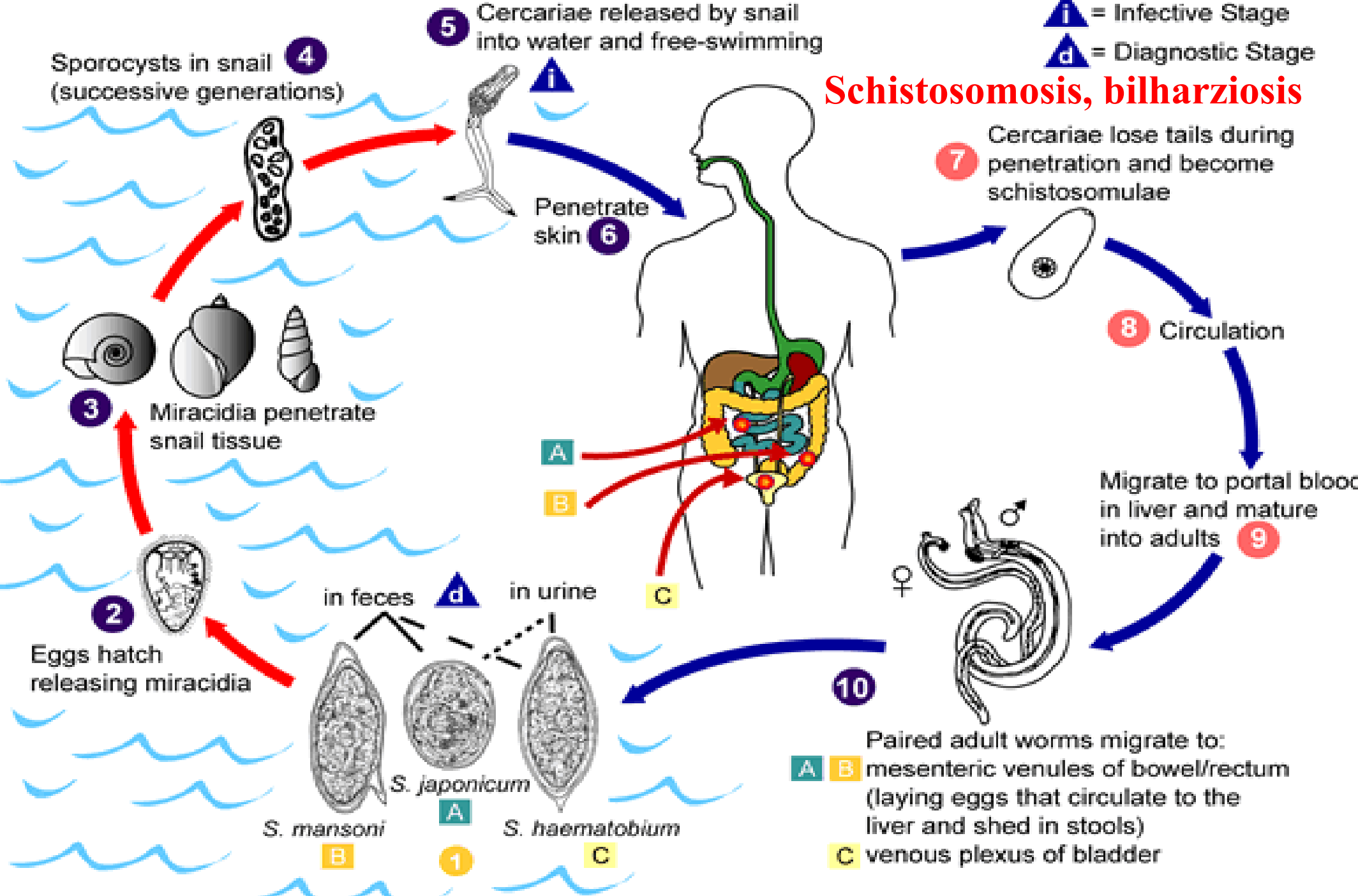


Flukes (Trematodes)

- schistosomiasis (bilharsiasis)
- *S. hematobium*
- *S. intestinalis (mansoni)*
- *S. japonicum*
- *S. mekongi*

i = Infective Stage
d = Diagnostic Stage

Schistosomosis, bilharziosis





تنبیه هام **ATTENTION**

عزيزي الزائر :
تحتوي مياه هذه العين على القواقع الناقله لمرض
الباراسيتا ، وعليه يرجى عدم النزول الى الماء
لاى غرض كان ومنعا لانتقال المرض . شاكرين لكم تعاونكم

DEAR VISITOR:

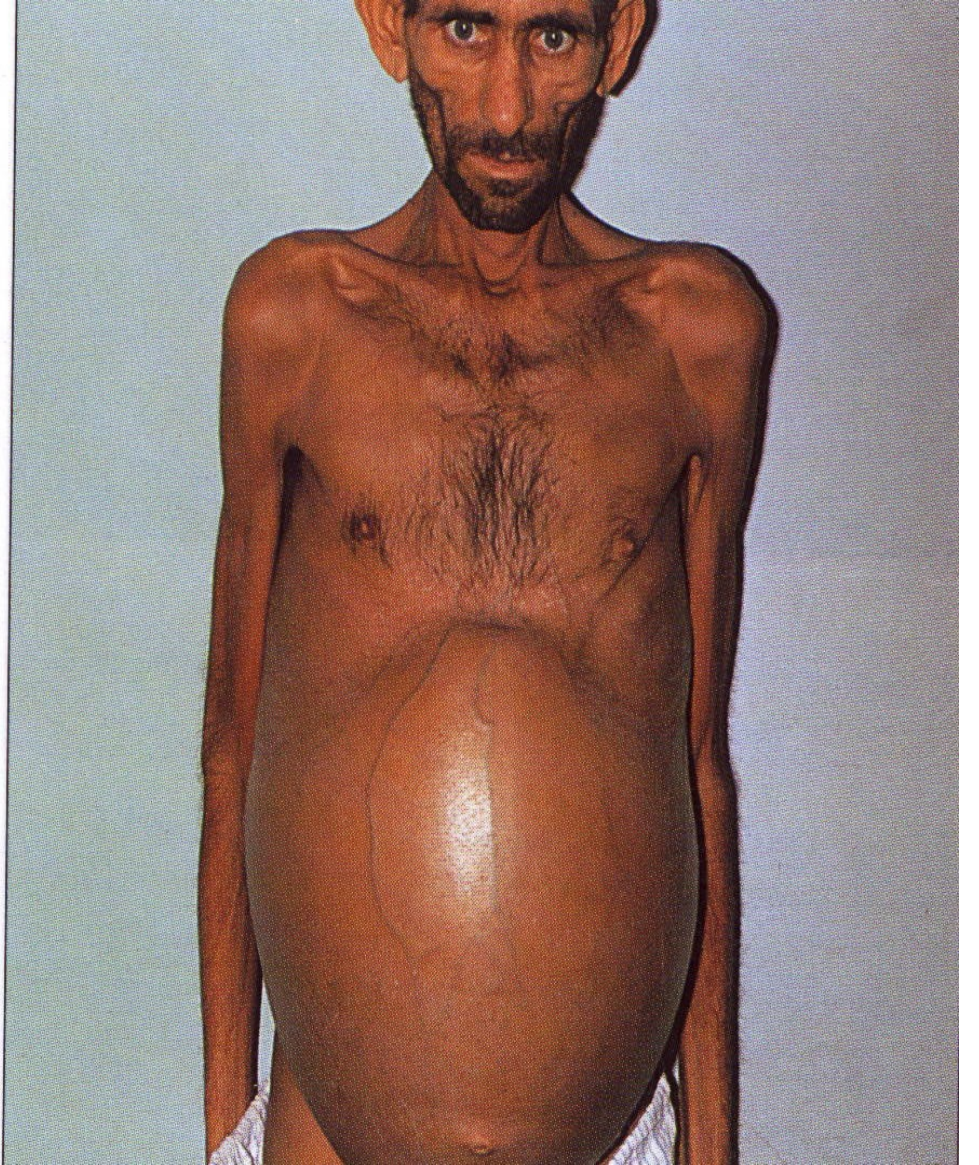
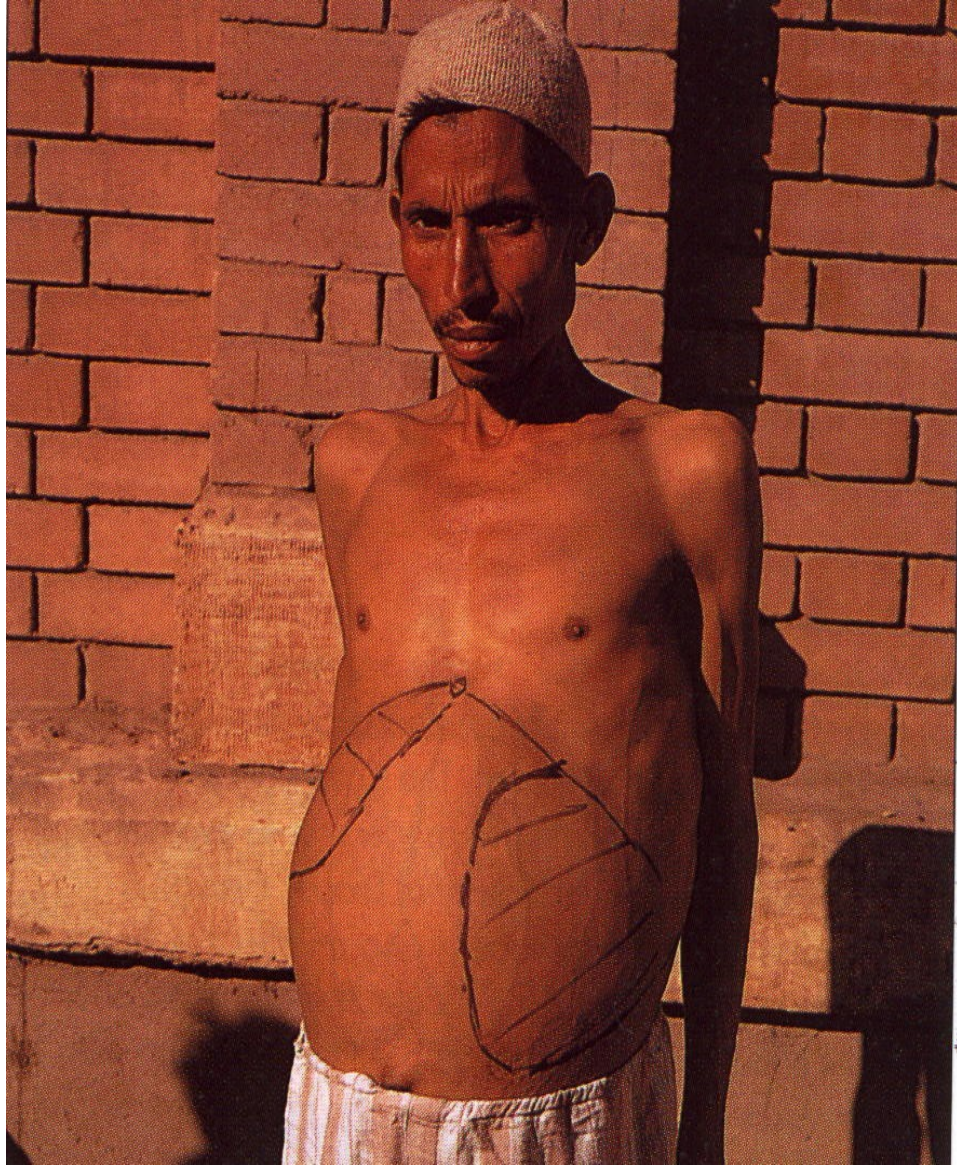
**THIS SPRING WATER HARBORS THE SNAILS WHICH CAN
TRANSMIT THE DISEASE BILHARAZIASIS. THEREFORE, GOING
DOWN TO THE WATER FOR ANY REASON IS STRONGLY
PROHIBITED TO CONTROL THE INFECTION WITH BILHARAZIASIS.
THANKING YOUR COOPERATION.**

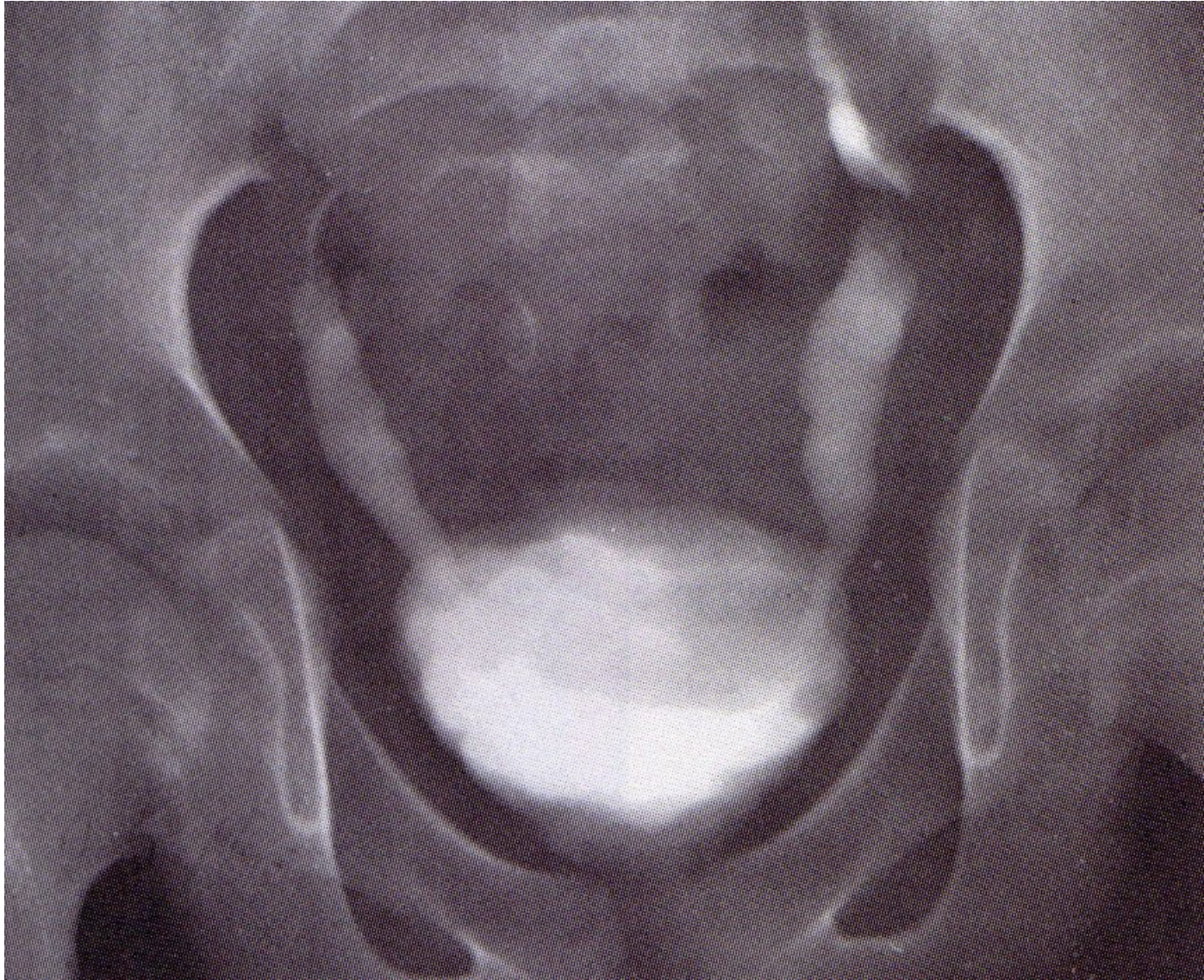












Fungal GI infections

- about all **candidiasis**
- different members of *Candida* sp. (mostly *C.albicans*)
- mouth cavity, oesophagus, anorectal
- mostly IS patients
- fluconazol, itraconazol ketoconazol, amphotericin



Thank you for your attention!

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