

Fecesonderzoek op parasieten

Theo Mank

t.mank@streeklabhaarlem.nl

Rondzendingen 2011

- *Blastocystis hominis*
- *Chilomastix mesnili*
- *Cyclospora cayetanensis*
- *Endolimax nana*
- *E histolytica/dispar*
- *Giardia lamblia*
- *Diphyllobothrium latum*
- *Hymenolepis nana*
- *Taenia* sp

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After 1997

With microscope *Entamoeba histolytica*
morphological identical *Entamoeba dispar*

But:

Entamoeba dispar: non-pathogen !

Entamoeba histolytica: pathogen



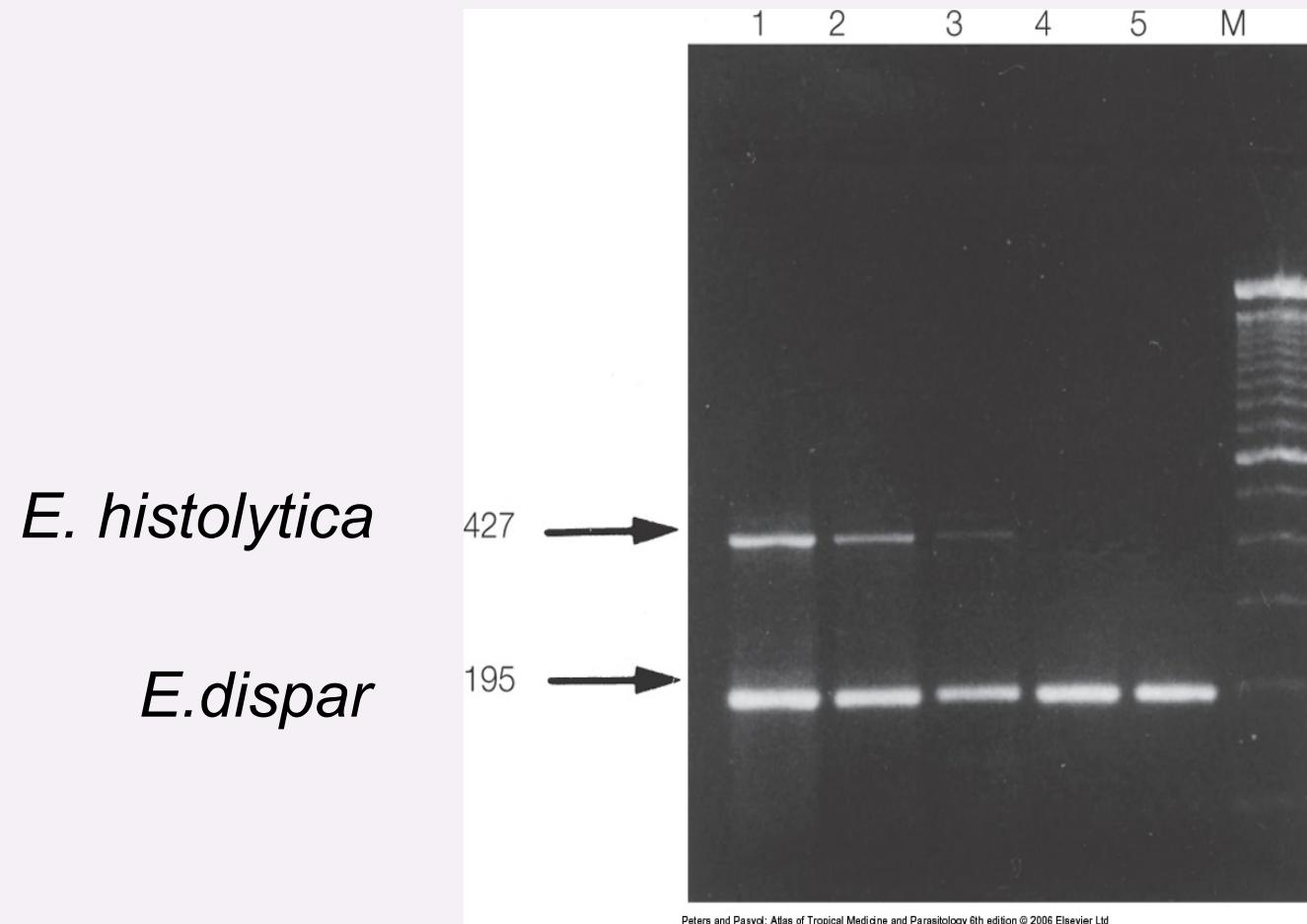
Entamoeba histolytica
haematophage amoebae in eosine

Entamoeba histolytica trofozoiet

gefagocyteerde
erythrocyten

nucleus

New tests necessary for differentiation of
Entamoeba histolytica from *Entamoeba dispar*: i.e.
polymerase chain reaction (DNA-studies)



Entamoeba histolytica and *E.dispar*

We now believe that *four*, not three species of *Entamoeba* live in the human large bowel:

- *Entamoeba hartmanni*
- *Entamoeba histolytica*
- *Entamoeba dispar*
- *Entamoeba coli*

There are also a few rare species:

- *E. moshkovski*
“Atypical,” “low temperature” or “Laredo” strains of *E.histolytica*
- *E. polecki*
- *E. chattoni*
- *E. gingivalis*

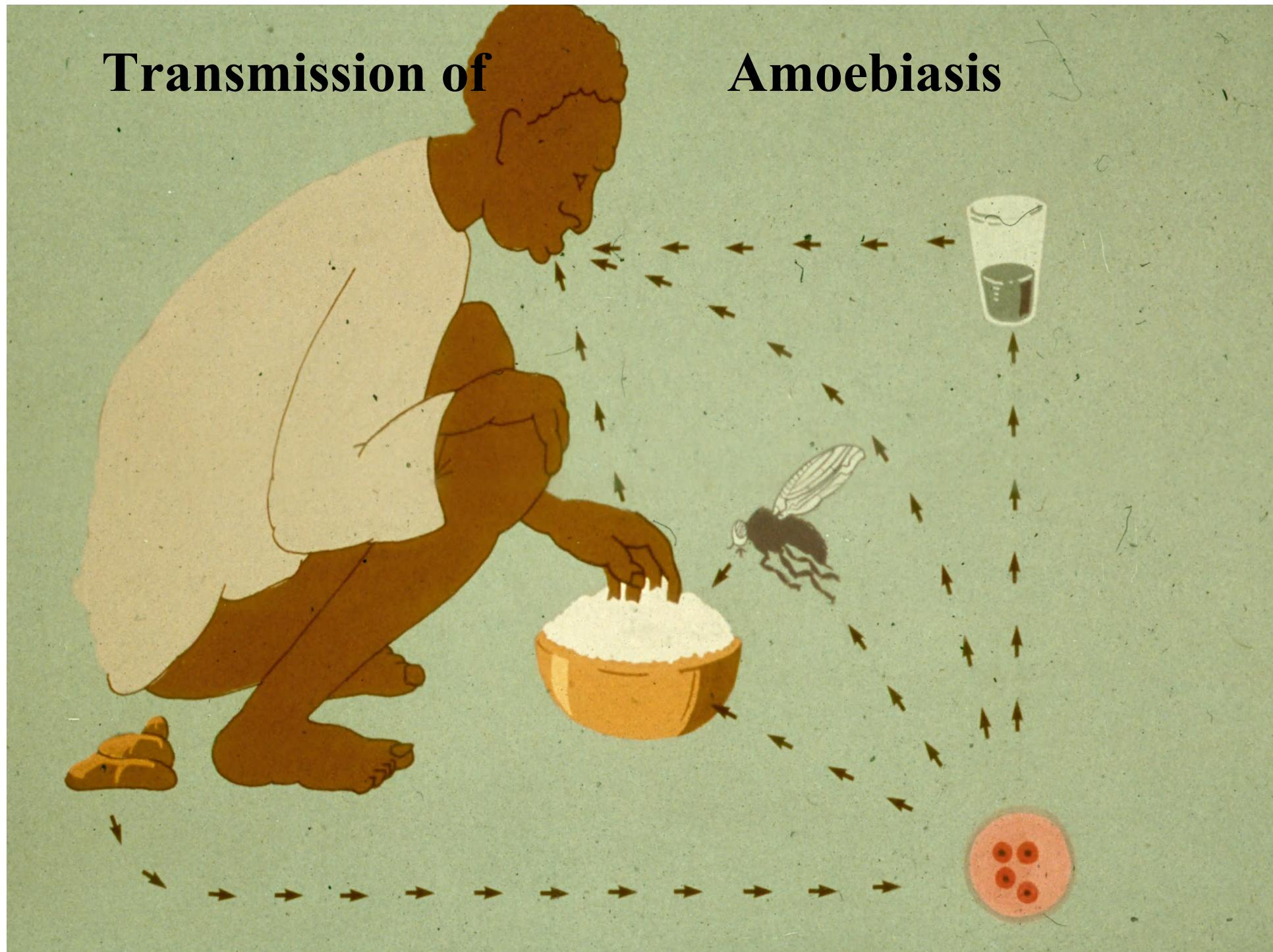
Amoebiasis:

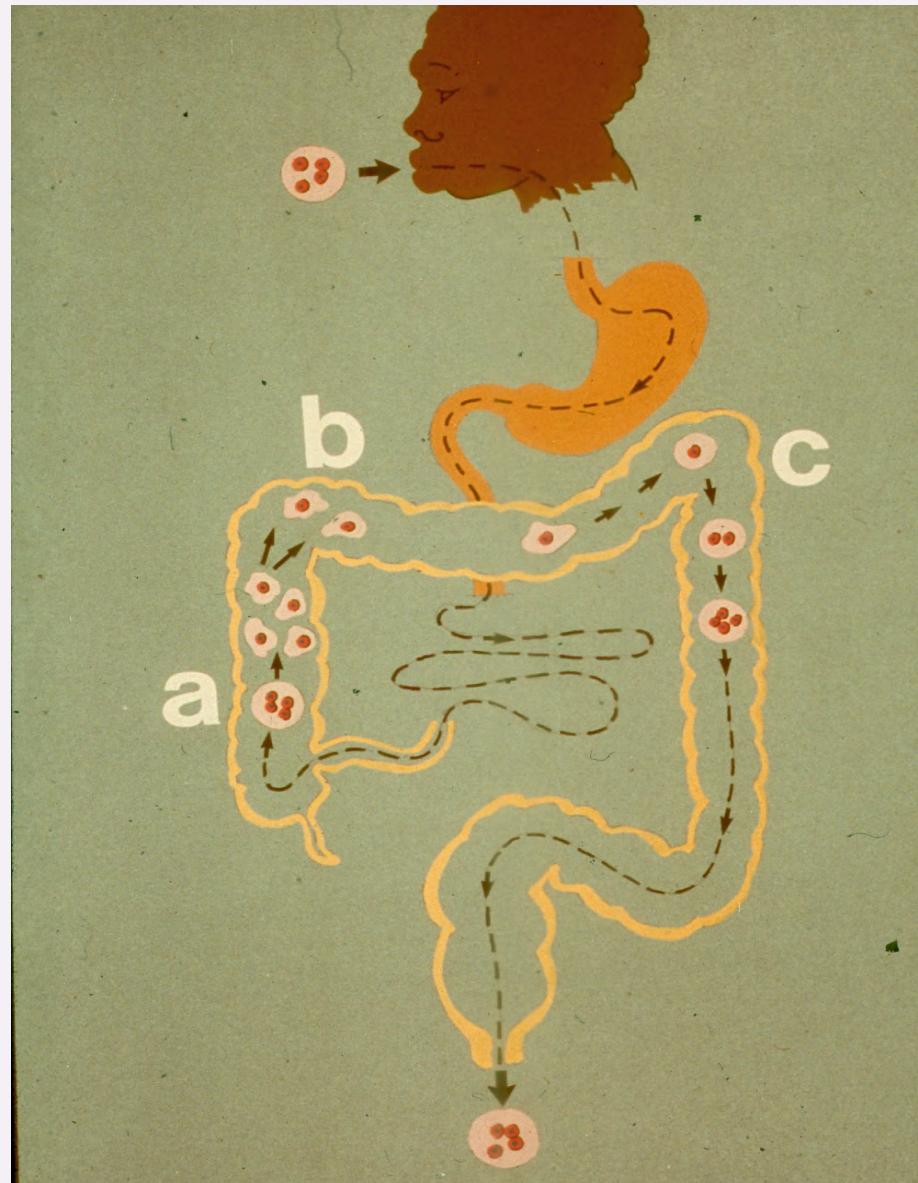
Illness caused by infection with
Entamoeba histolytica, an unicellular parasite

Amoebiasis

an old and important cause of intestinal
and liver disease.....

Transmission of Amoebiasis





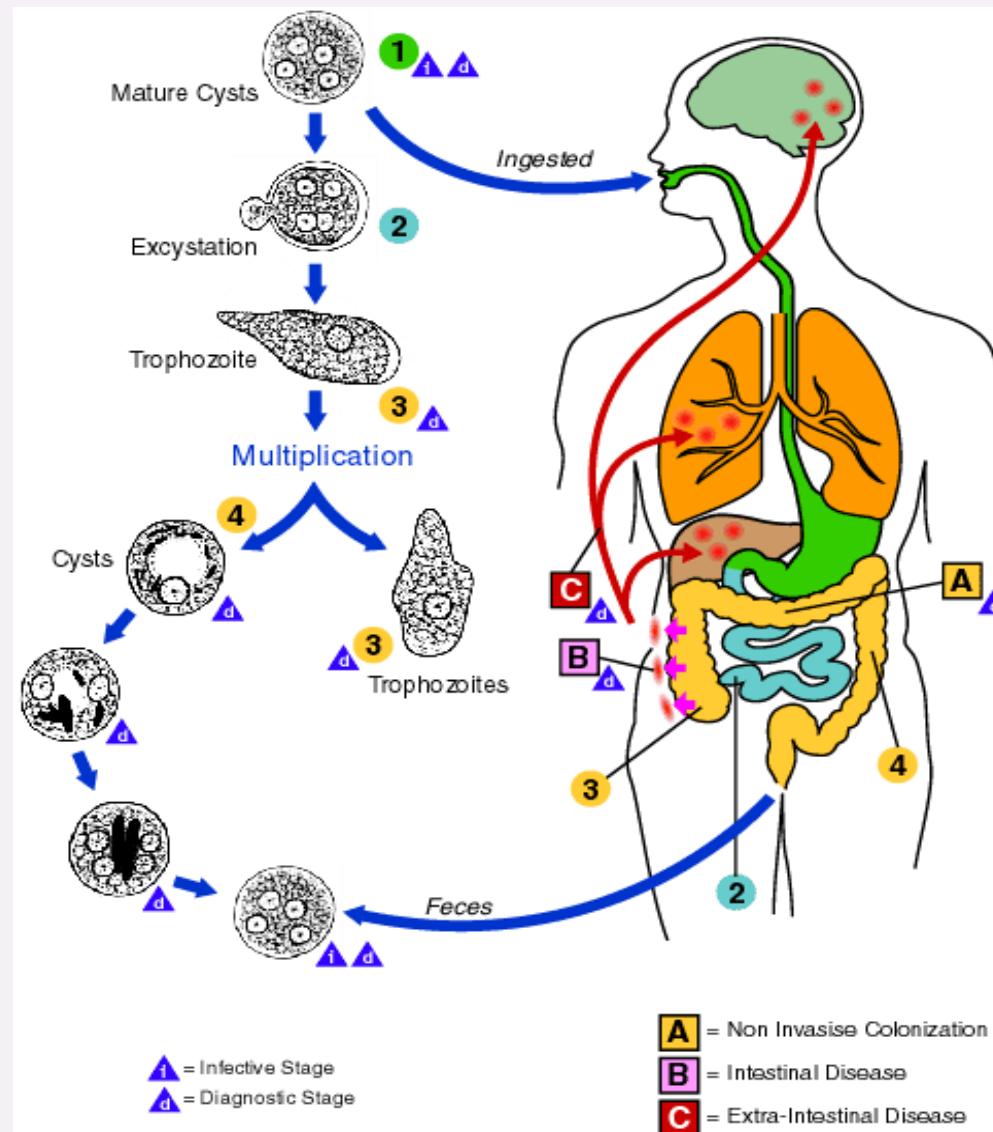
Asymptomatic

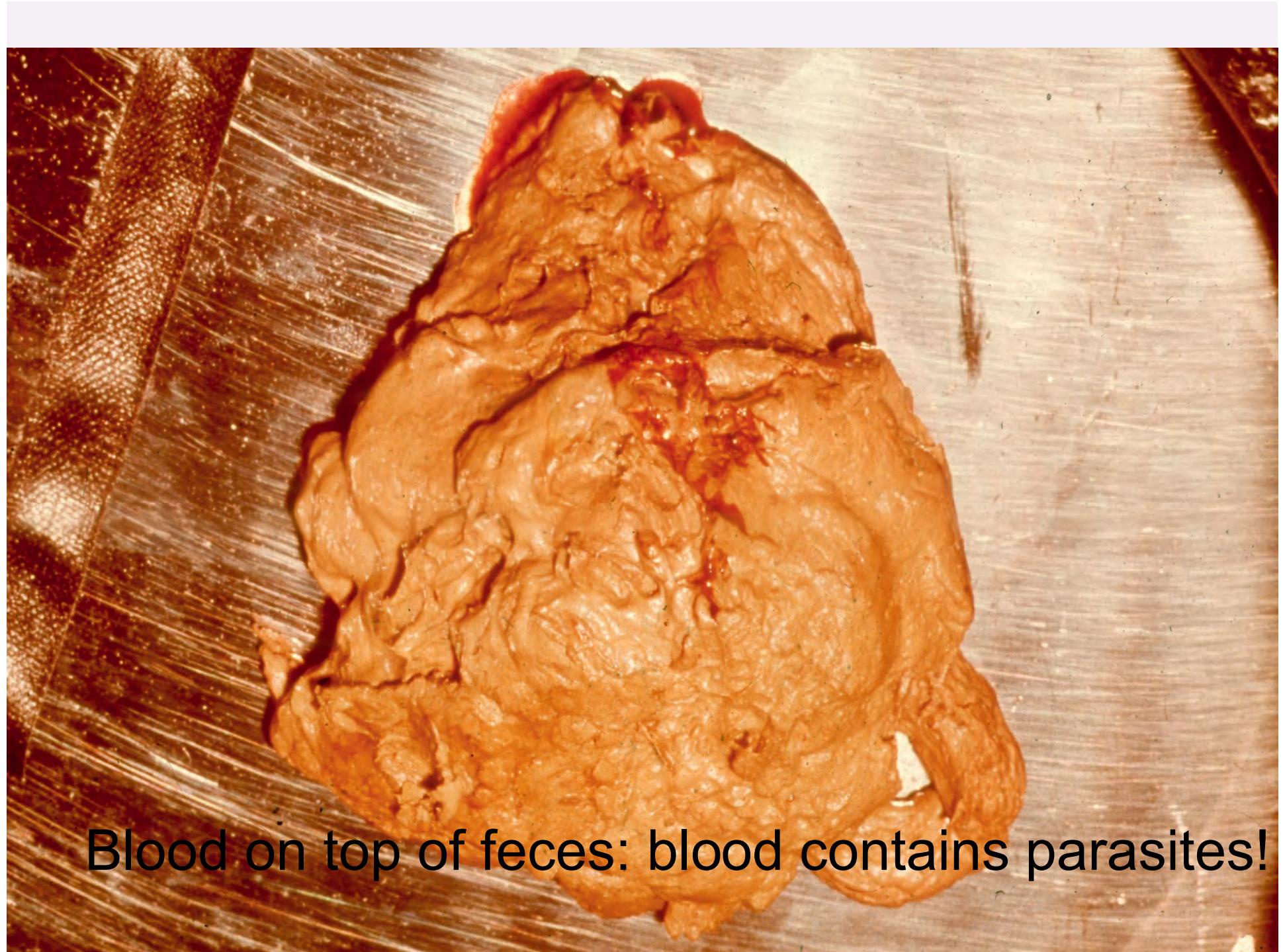
Intestinal

Extra-intestinal

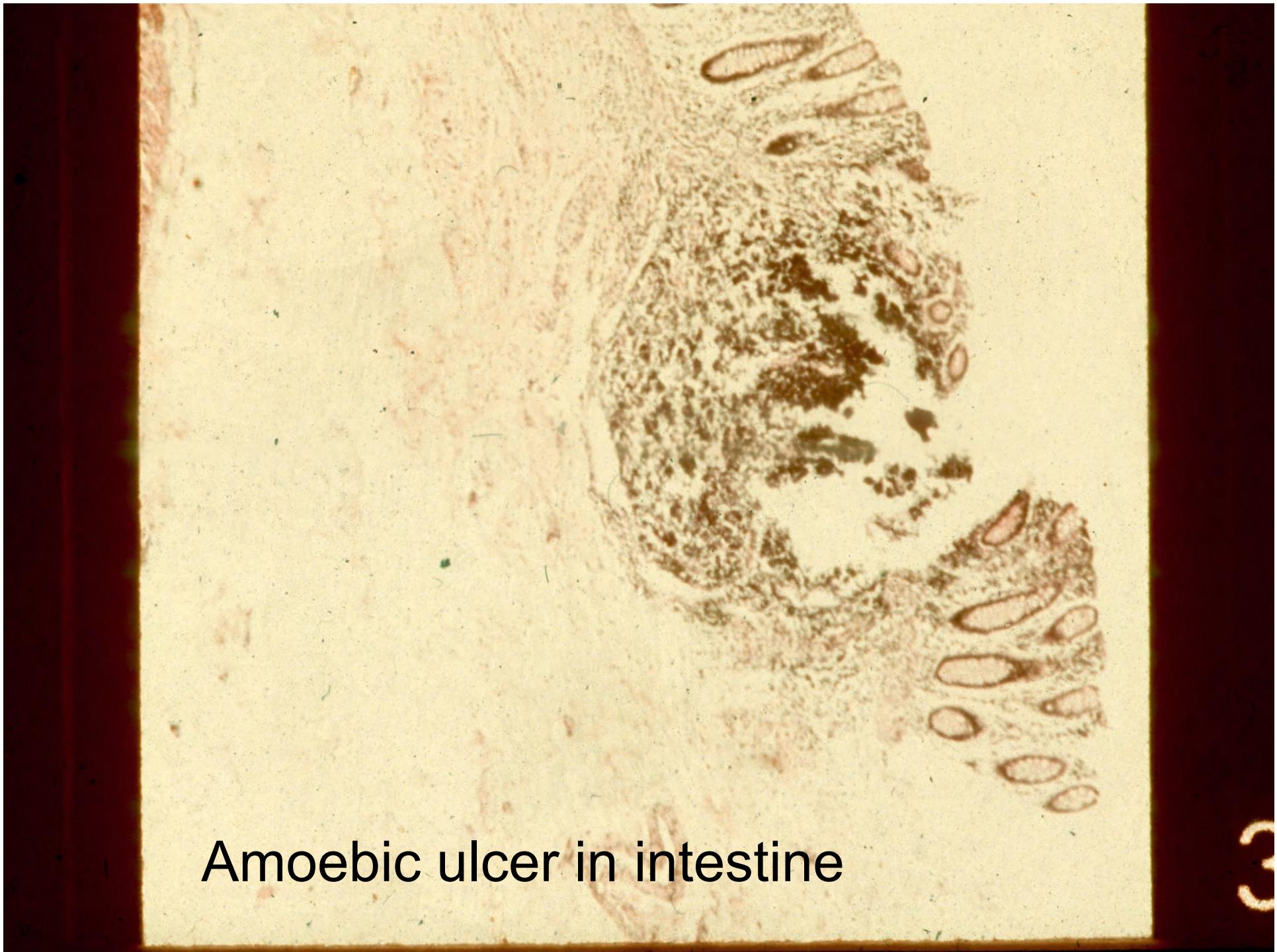
Infection of *E. histolytica* can be asymptomatic
and symptomatic: 4-10% develop disease
over a year

Life cycle of *E.histolytica*





Blood on top of feces: blood contains parasites!



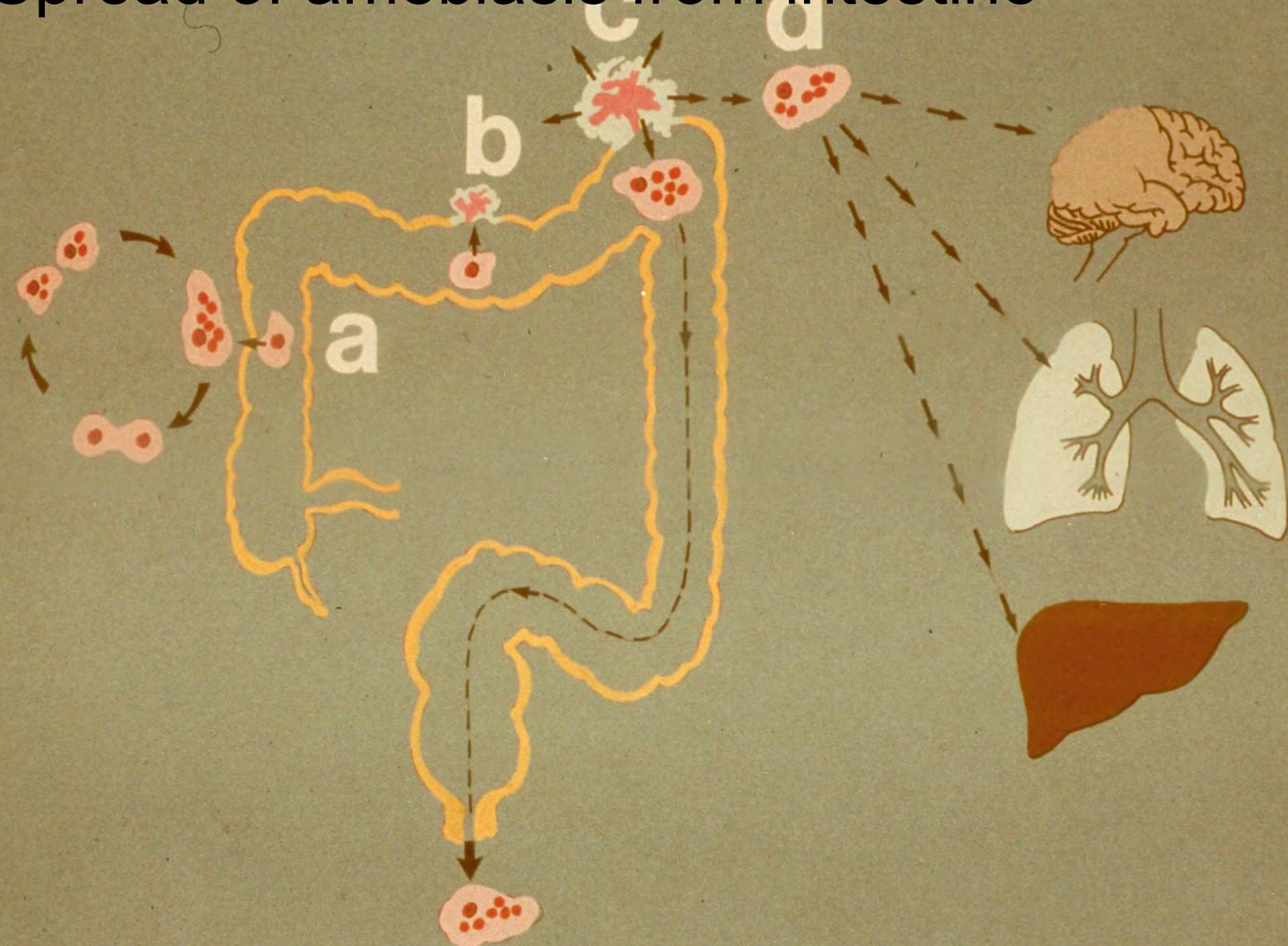
Amoebic ulcer in intestine

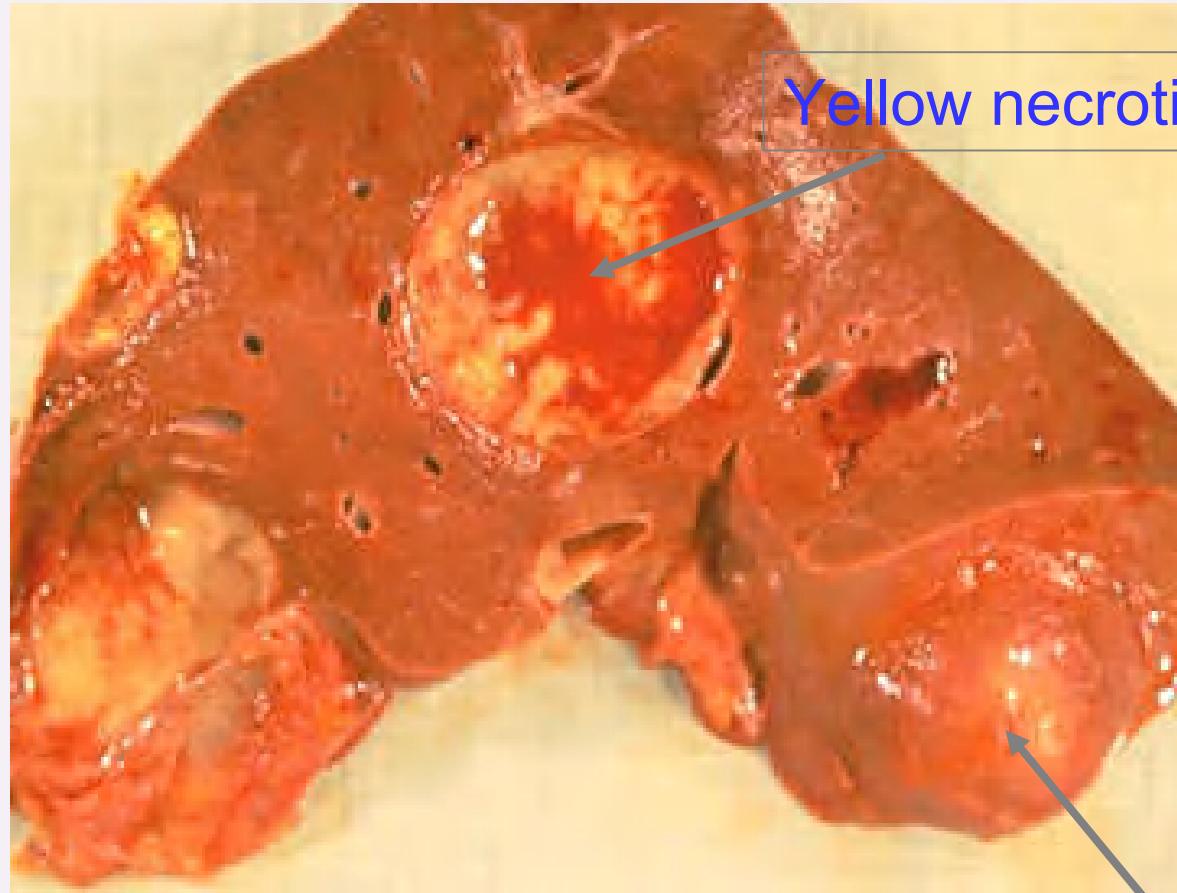
3



Typical flask shaped ulcer in amoebiasis of gut
(spread laterally in submucosa)

Spread of amebiasis from intestine



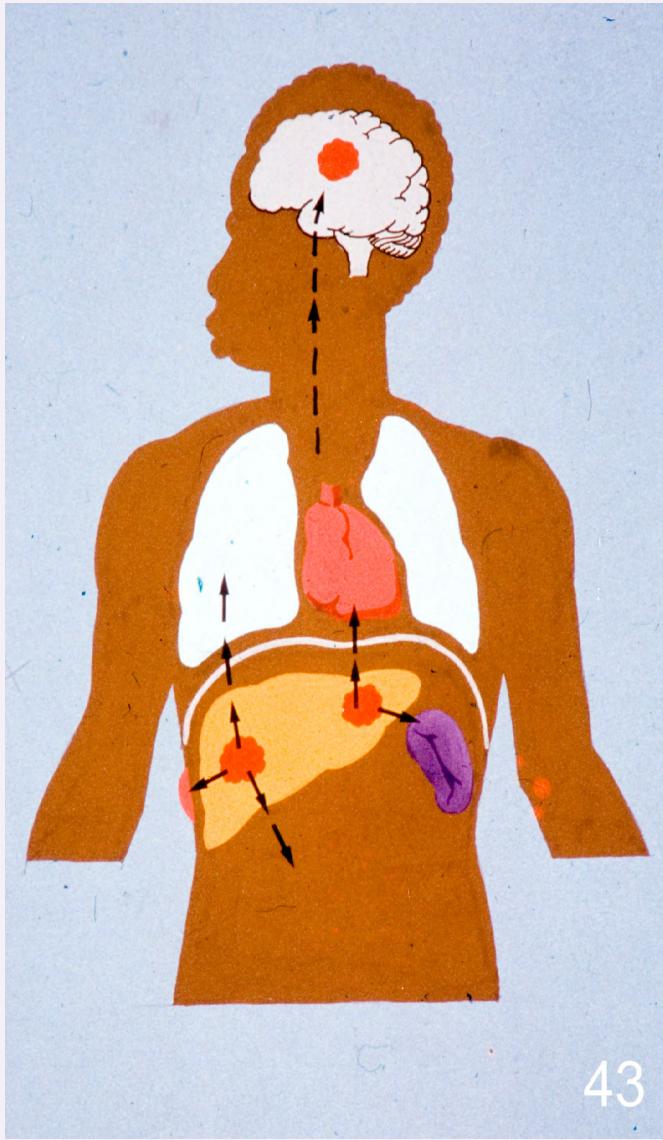


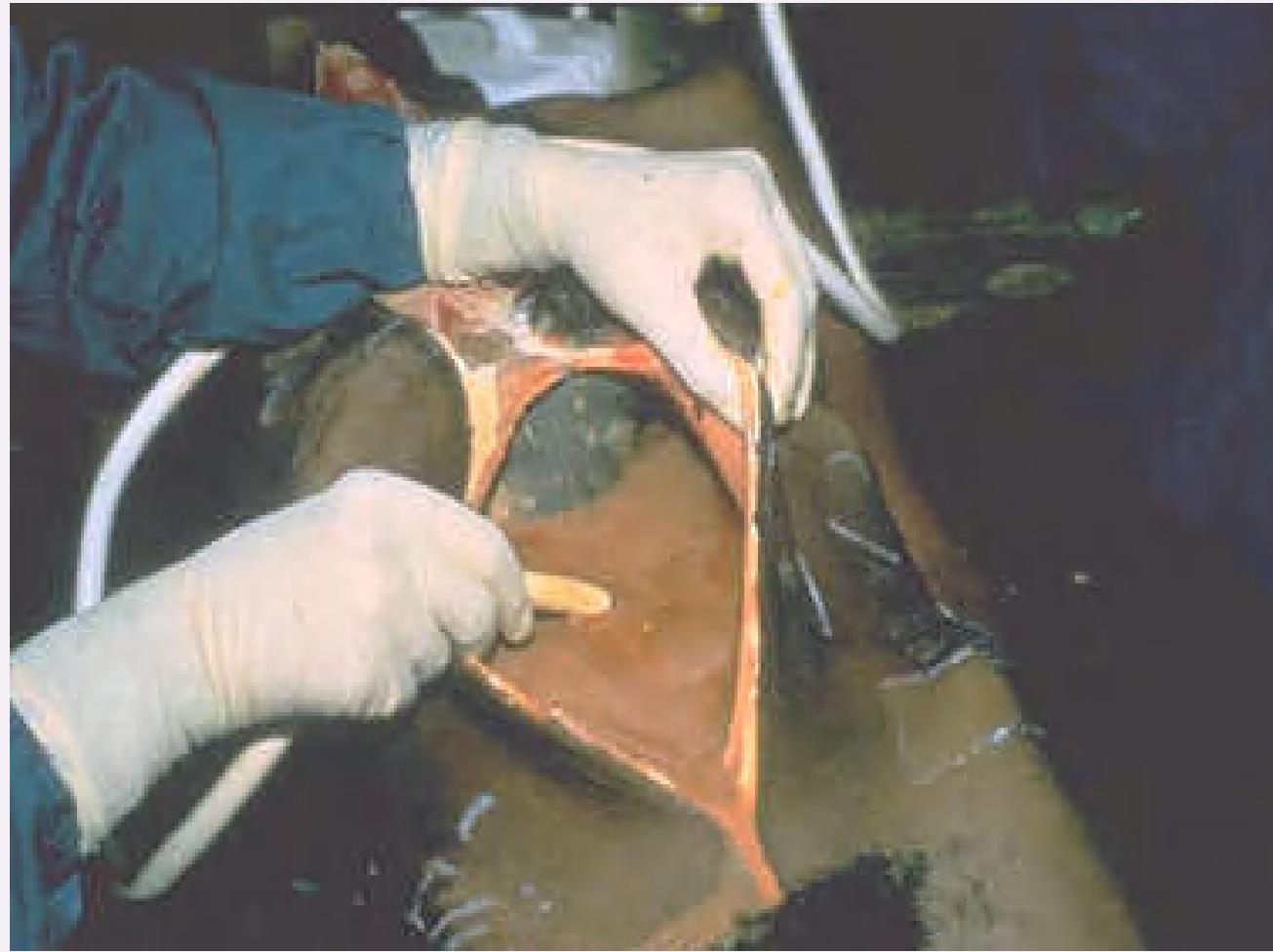
Several liver abscesses

Intact abcess

Yellow necrotic tissue

Complications of amoebic abcesses





Rupture of large amoebic abscess
in peritoneal cavity

Diagnosis

Intestinal
Extra-intestinal

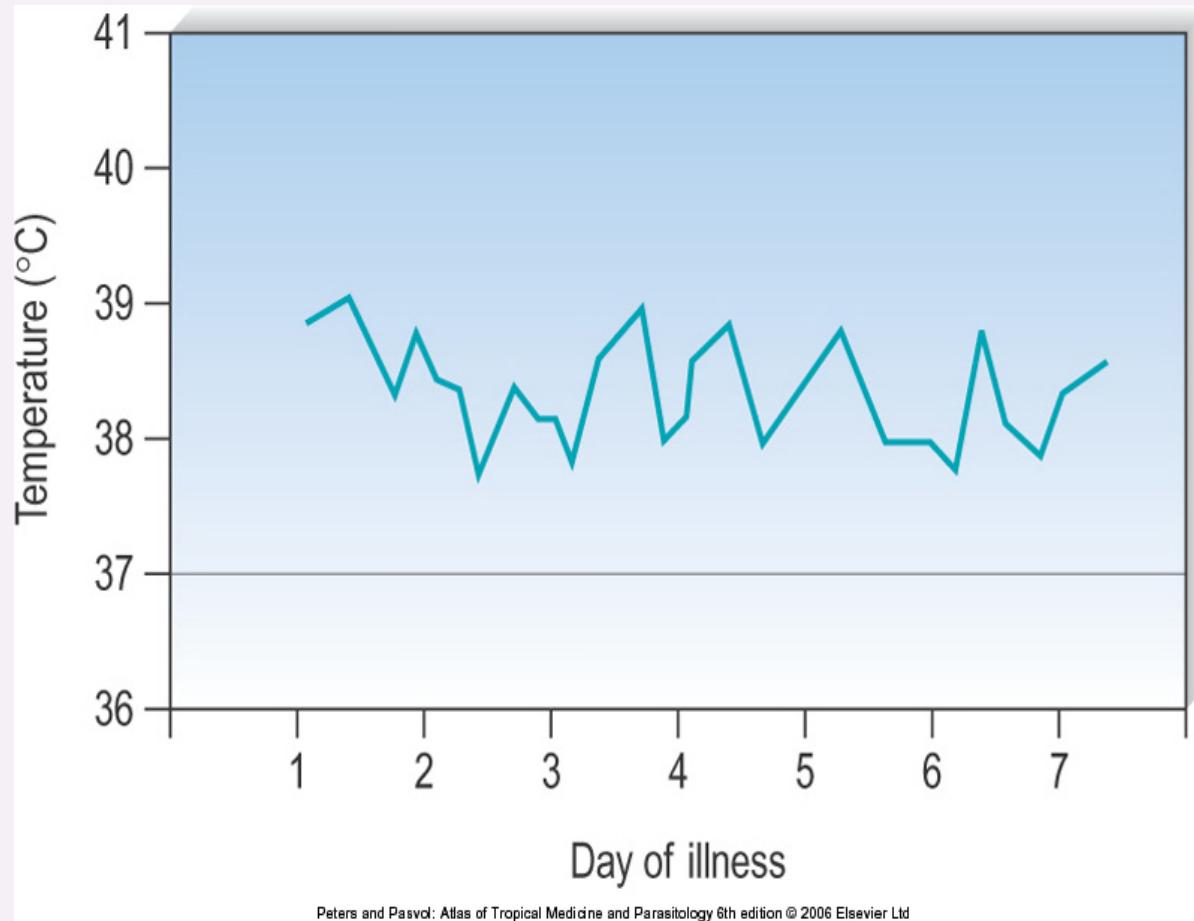
Diagnosis / Intestinal

- Stool examination
 - Microscopy
 - single
 - fresh / preserved (SAF)
 - ridley
 - TFT
 - ELISA
 - PCR

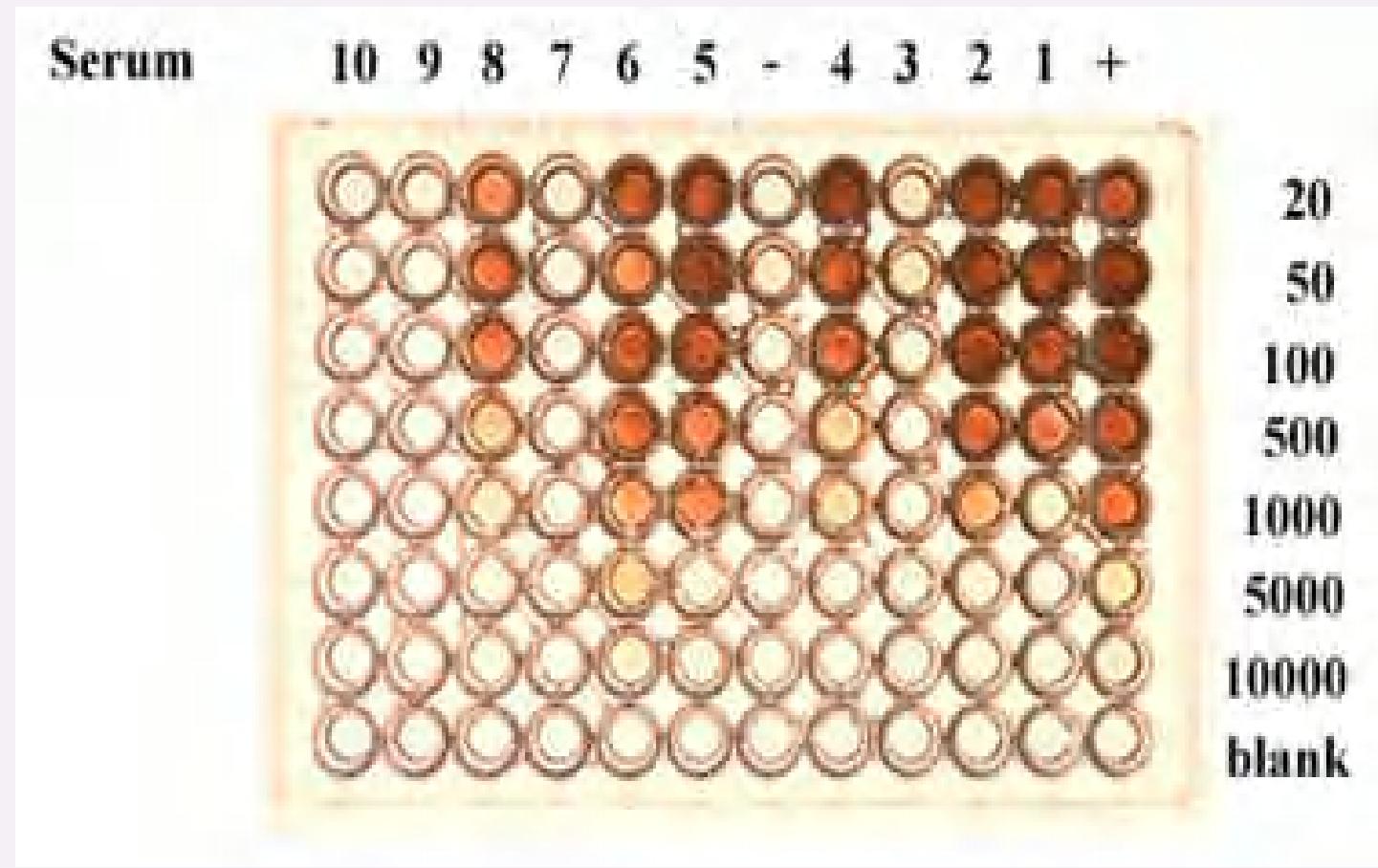
Diagnosis

Intestinal
Extra-intestinal

Temperature chart of patient with amoebic liver abscess



The triad of swinging temperature, profuse sweats and leukocytosis is indicative of liver abscess



ELISA method for detection of specific antibodies to *Entamoeba histolytica*

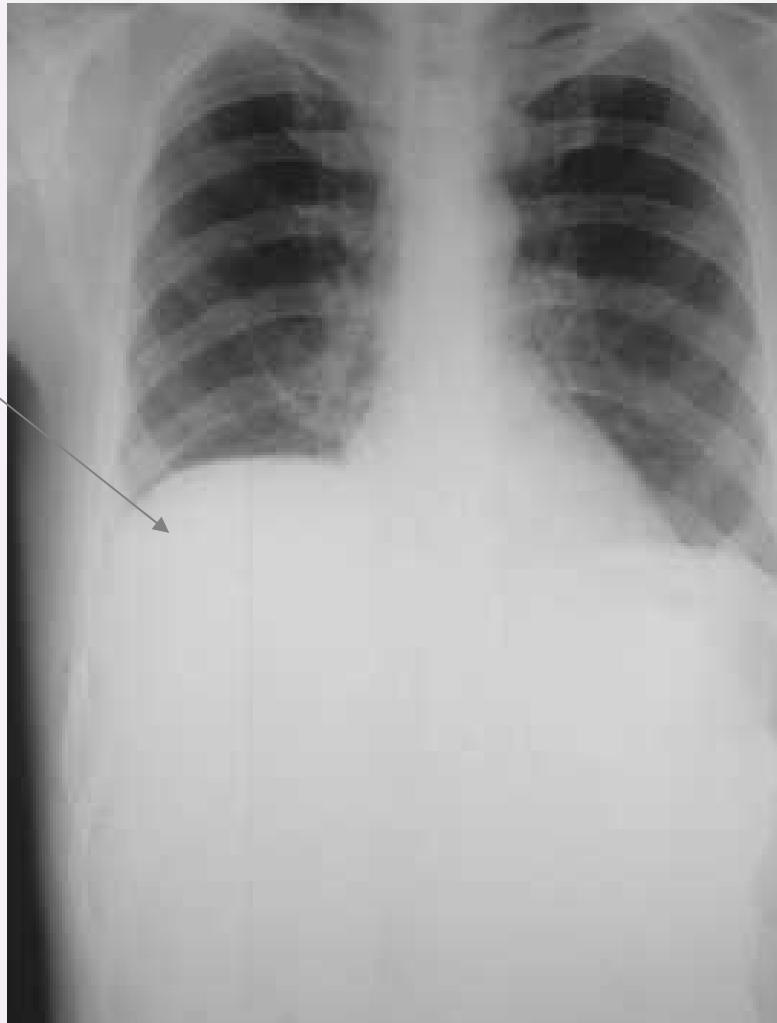
Diagnosis



Ultrasound scan: amoebic liver abscess

CT scan of amoebic liver abcess (500-1500 ml)





Raised right hemidiaphragm due
to amoebic liver abscess



Drainage of an amoebic liver abscess

Classic data:

- New infections, world-wide, *per annum*: 480 million
- With disease: 10 – 50 million
- Deaths: 40 – 100,000

(Walsh, 1986)

Reinterpreted - new infections *per annum* (*very approximate*):

- *E.histolytica* + *E.dispar*: 480 million
- *E.dispar*: 450 million?
- *E.histolytica*: 10-50 million?
 - with symptoms of invasive amoebiasis: 4 - 10 %
- Deaths: 40-100 000 every year

Therapy

tissue phase: Metronidazol (750 mg tid x 7-10d)

luminal agents: Paromomycin (30 mg/kg x 5-10d)

or

Diloxanide furoate (500 mg tid x 10d)

Always treatment with a luminal agent after
treatment for the tissue phase!

Otherwise up to 30% will remain infected
and may relapse (Irusen et al. 1192)