

SCHISTOSOMIASIS

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Background & Significance

Also called “Snail Fever” or Bilharzias

Caused by a parasitic blood fluke called *Schistosoma haematobium*

Second only to Malaria as the most devastating parasitic disease in sub-Saharan Africa

Increasing incidence in other areas due to refugee movements and migration, affects over 240 million people

Now endemic in 76 countries including South America, the Caribbean, the Middle East and Asia

Transmitted by egg-contaminated water – picked up by freshwater snails – released as larvae – penetrate human skin – infect the body and lays eggs – shed into fresh water by urine and feces.

Causes over 200,000 deaths annually

Signs & Symptoms

Skin rash from larvae penetrating the skin, commonly referred to as “swimmer’s itch”

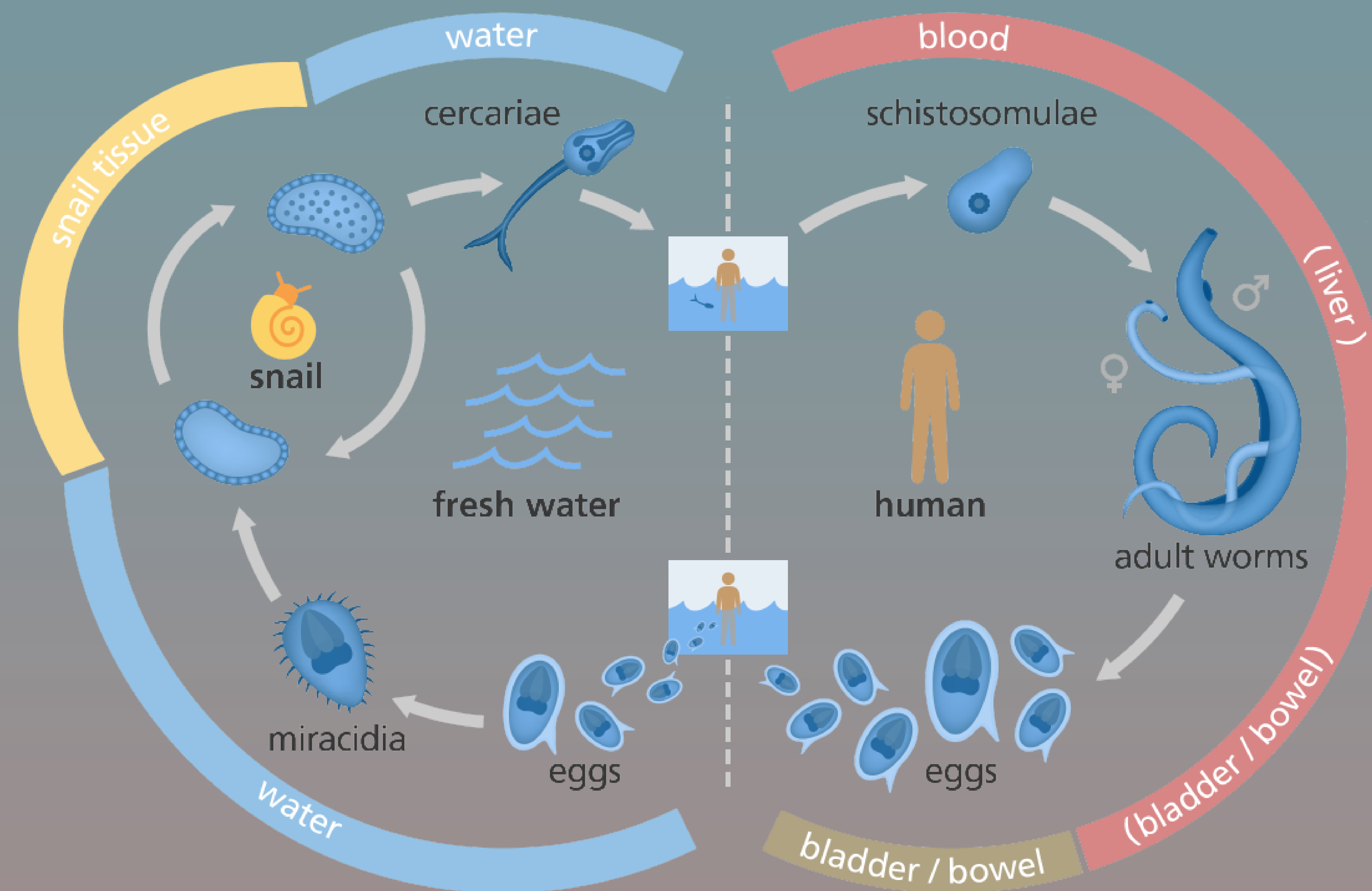
Fever, myalgia, abdominal pain, anemia headache, diarrhea, cough, bladder obstruction

Renal failure, growth retardation, portal hypertension, bladder cancer, enlargement of both the liver and spleen

Blood in the urine and stool

Granulomas develop in the liver, lungs, kidneys and colon from heavy egg infestation

Life Cycle



Schistosoma haematobium



Diagnosis

Egg detection in the urine or stool (Kato-Katz fecal method), polymerase chain reaction (PCR) assay for urine

Serologic antibodies (ELISA) (APIA) the results will stay positive even after treatment

Tissue biopsies, cystoscopy, colonoscopy, LP, bronchial washings

Ultrasound or CT Scan to assess fibrosis or Hepatobiliary disease

CXR, Echocardiography

Treatment

Praziquantel 2-3 doses of 20mg/kg has a cure rate of 60-90% (this is a common dog de-worming medication). Note: Resistance is developing to this drug in regions of Kenya and Egypt

Second agent is Oxamniquine

Works against adult worms only

Not for use in children under 6 years old – a significant number of infections are in children <6 years old

Ideally improved sanitation, snail control and clean water and early treatment

There is ongoing research into a Schistosomiasis vaccine

References

<http://www.globalnetwork.org/schistosomiasis>
<http://www.cdc.gov/parasites/schistosomiasis>
<http://www.end.org/whatwedo/ntdoverview/schistosomiasis>

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