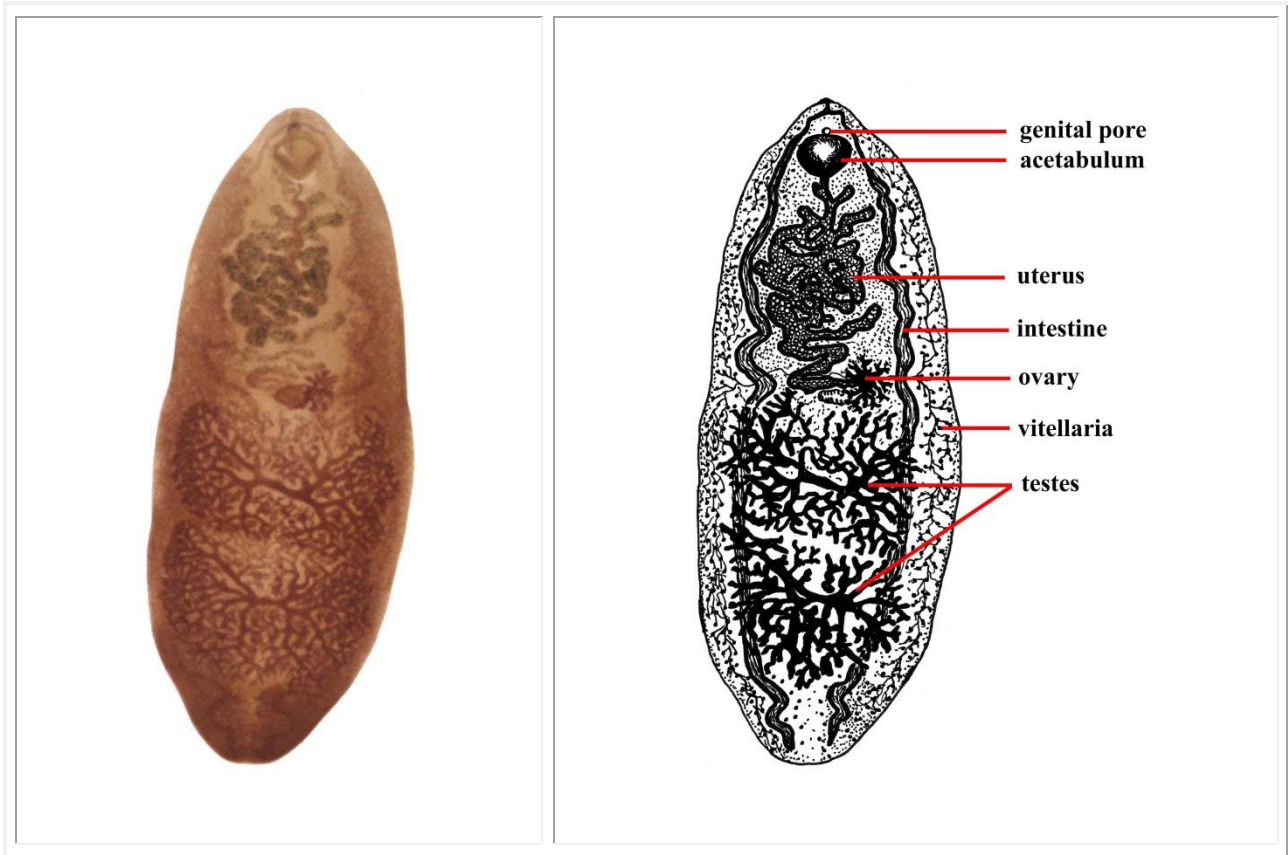


## *Fasciolopsis buski*



*Fasciolopsis buski* (Lankester, 1875) Odhner, 102, the giant intestinal fluke, was first observed by busk in the duodenum of a Laskar sailor at autopsy in London. Its natural geographical distribution is limited to Oriental countries.

### **Morphology, Biology, and Life Cycle**

*Fasciolopsis buski* is a large fleshy worm, broadly ovate or elongate-ovoidal, attached to the wall of the duodenum or jejunum. It measures 20 to 75 mm. long, 8 to 20 mm. wide and 0.5 to 0.3 mm. thick.

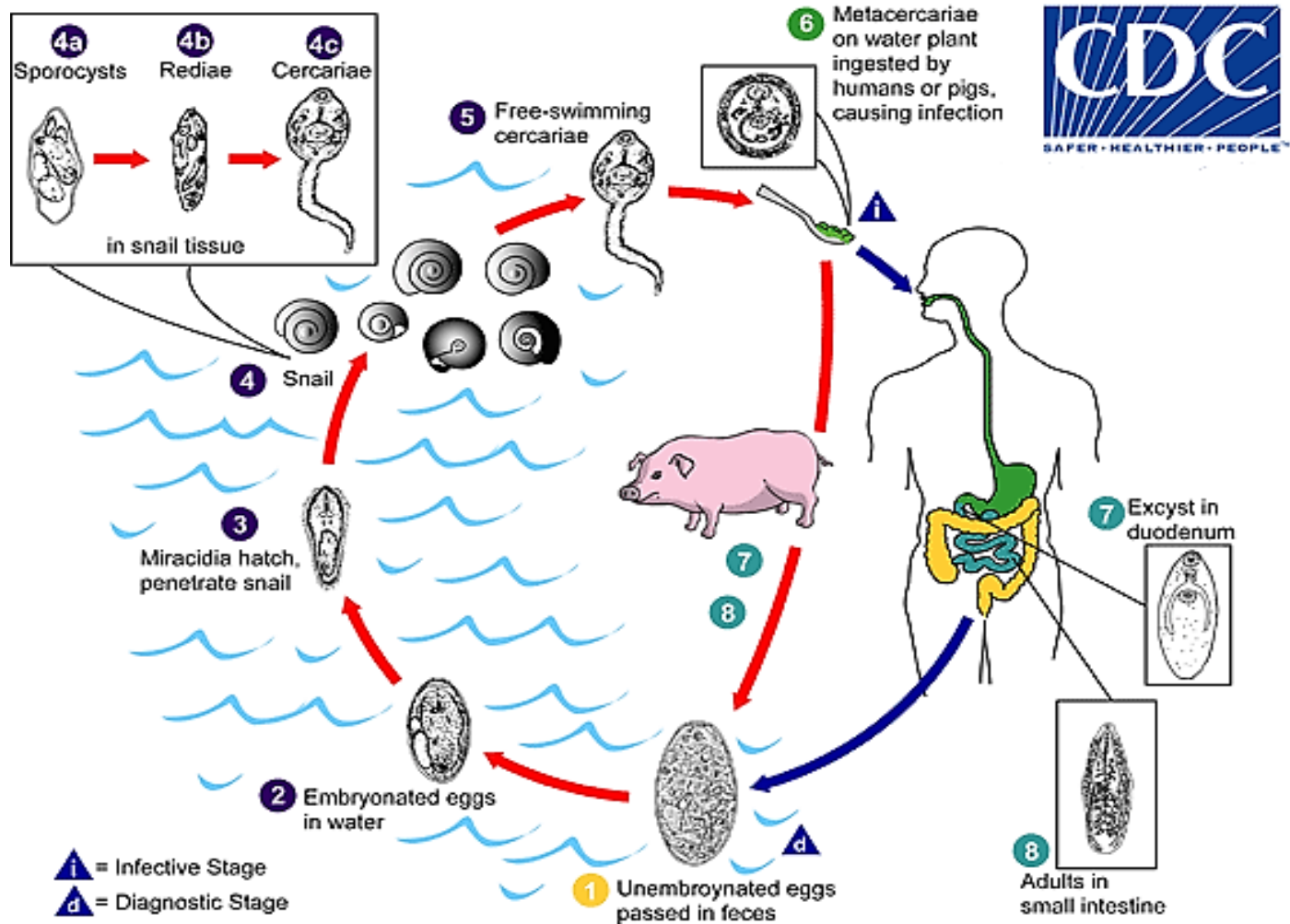
Eggs of *F. buski* are large, measure 130 to 140 microns by 80 to 85 microns, have a thin, transparent shell with a small slightly convex operculum at one end, and are unembryonated when evacuated in the host's feces. They are difficult to differentiate from eggs of *Fasciola hepatica*.

To proceed with their development, eggs of *F.buski* must reach quiet fresh water. Here they embryonate in 3 to 7 weeks at a temperature of 26.7 to 32 °C., following which a miracidium breaks out of the shell through the opened operculum, then escapes from its embryonic membrane and swims about vigorously in the water. On contact with an appropriate small planorbid snail (species of *Segmentina*) the miracidium penetrates the soft tissues and transforms into a sporocyst. In this mother spore sac, a generation of rediae is produced.

Usually the redial generation produces a number of vigorous cercariae, which erupt from the snail and, after swimming about, crawl onto aquatic vegetation and encyst. Man commonly becomes infected while consuming these aquatic vegetation, so that some of the encysted metacercariae are set free and swallowed. After excysting in the duodenum, the larvae become attached to nearby mucosa and in about 3 months develop into mature worms.



*The egg*



## Life Cycle of *Fasciolopsis buski*

### Pathogenicity and Symptomatology

The damage produced by these large fleshy worms is mechanical, obstructive and toxic. At each site of attachment, a mucosal ulcer is produced. A few worms may cause no serious intestinal symptoms, but frequently there are dozens to hundreds in an infection. These embarrass digestion and at times cause acute obstruction. Toxic metabolites of the parasites are absorbed systemically and produce edema of

the face, especially around the eyes, of the abdomen and lower extremities. There is characteristically a notable eosinophilia.

The early symptoms are diarrhea and hunger pains; those with heavy infections mimic peptic ulcer. Ascites and asthenia are characteristics, as well as generalized abdominal pain, anorexia, nausea and vomiting typically occur.

### **Diagnosis**

This is based on recovery of characteristic eggs of *F.buski* in the stools.

### **Treatment**

Fasciolopsiasis can be treated with prescription medicine taken by mouth, called praziquantel. It should be taken with liquids during a meal. Praziquantel is approved by the FDA, but considered investigational for this purpose.