

3) Hymenolepis Nana (Dwarf tapeworm)

Classification

Phylum - Platyhelminthes

Class - Cestoda

Genus - Hymenolepis

Species - nana

Habit / Habitat

It is worldwide in distribution. It is the common tapeworm found in America, India, Europe, Asia and Nepal. It is more common in warm climate than in cold climate. The adult worm lives in the small intestine of man. It is also found in rat.

Morphology

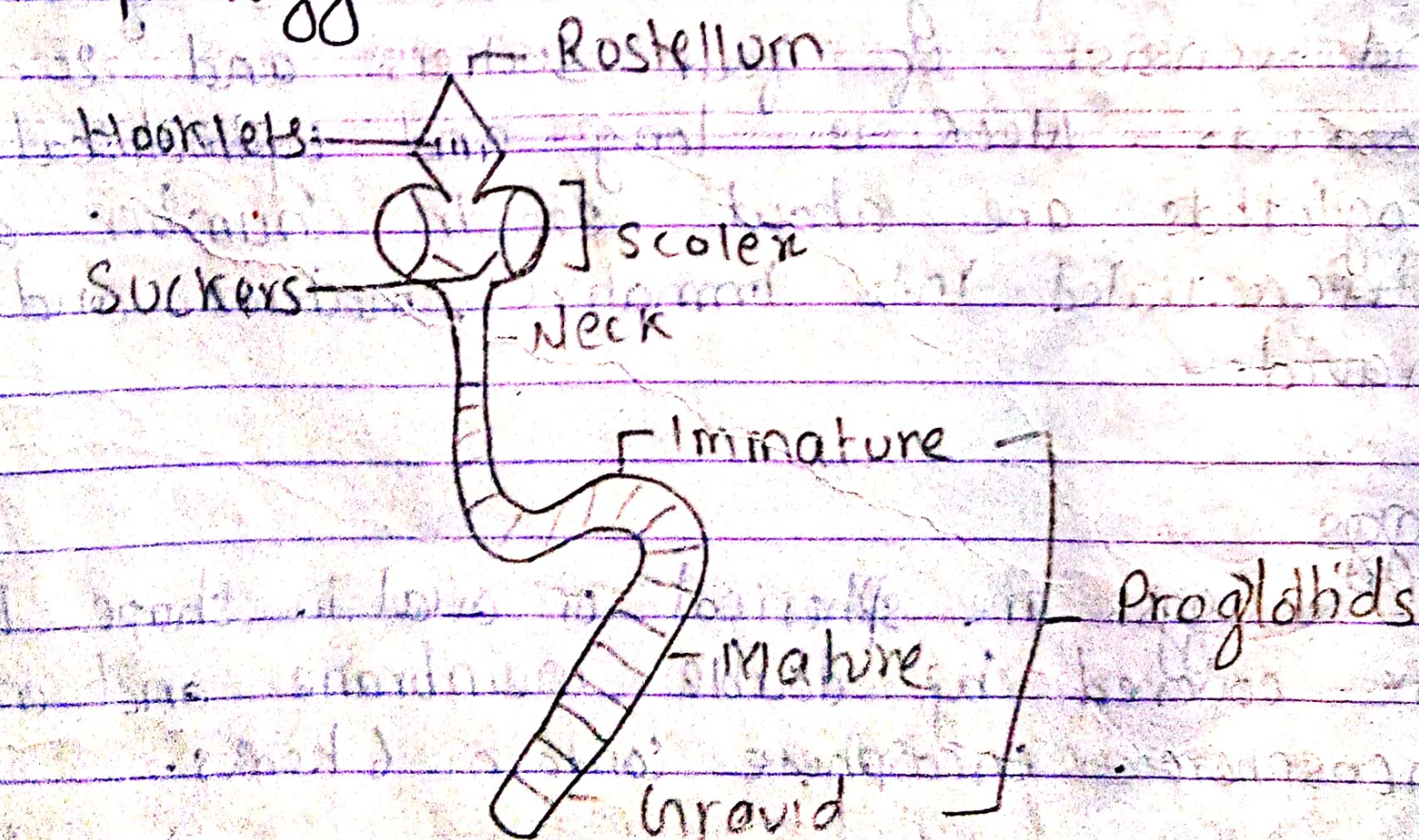


Fig: Adult Hymenolepis nana

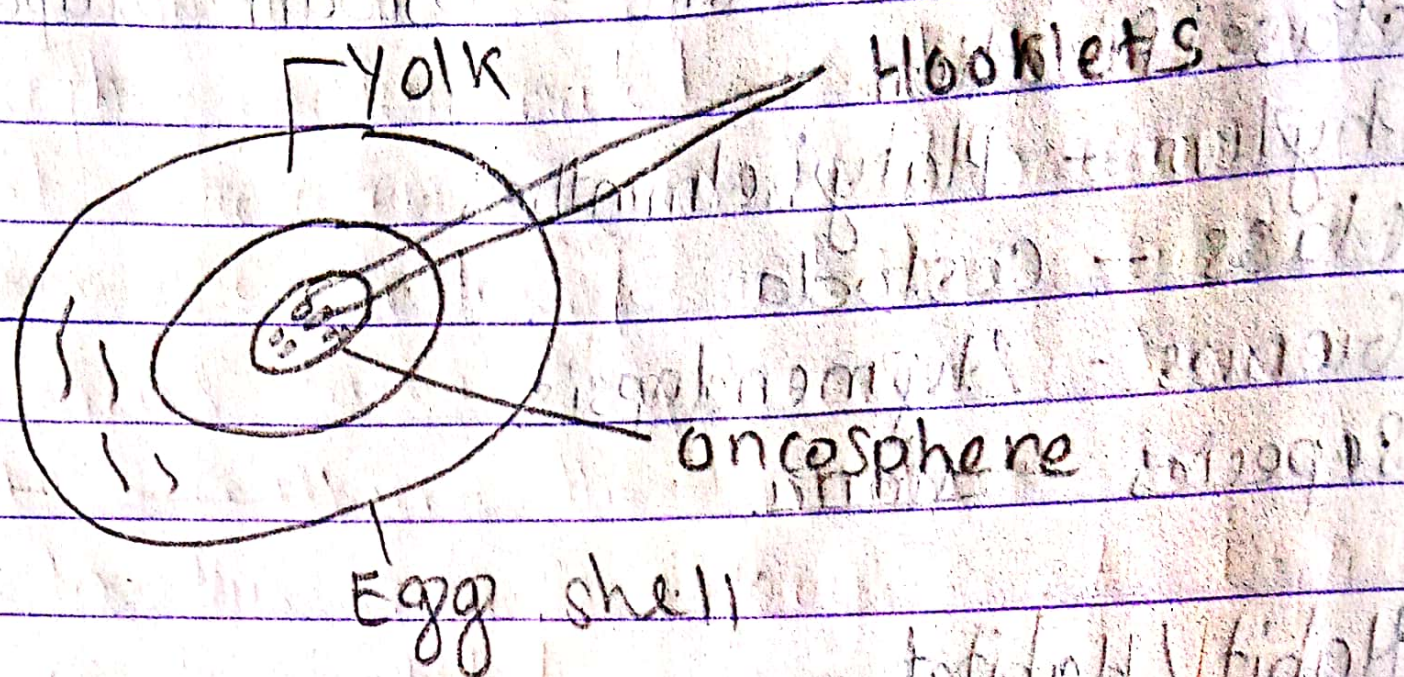


Fig: Egg

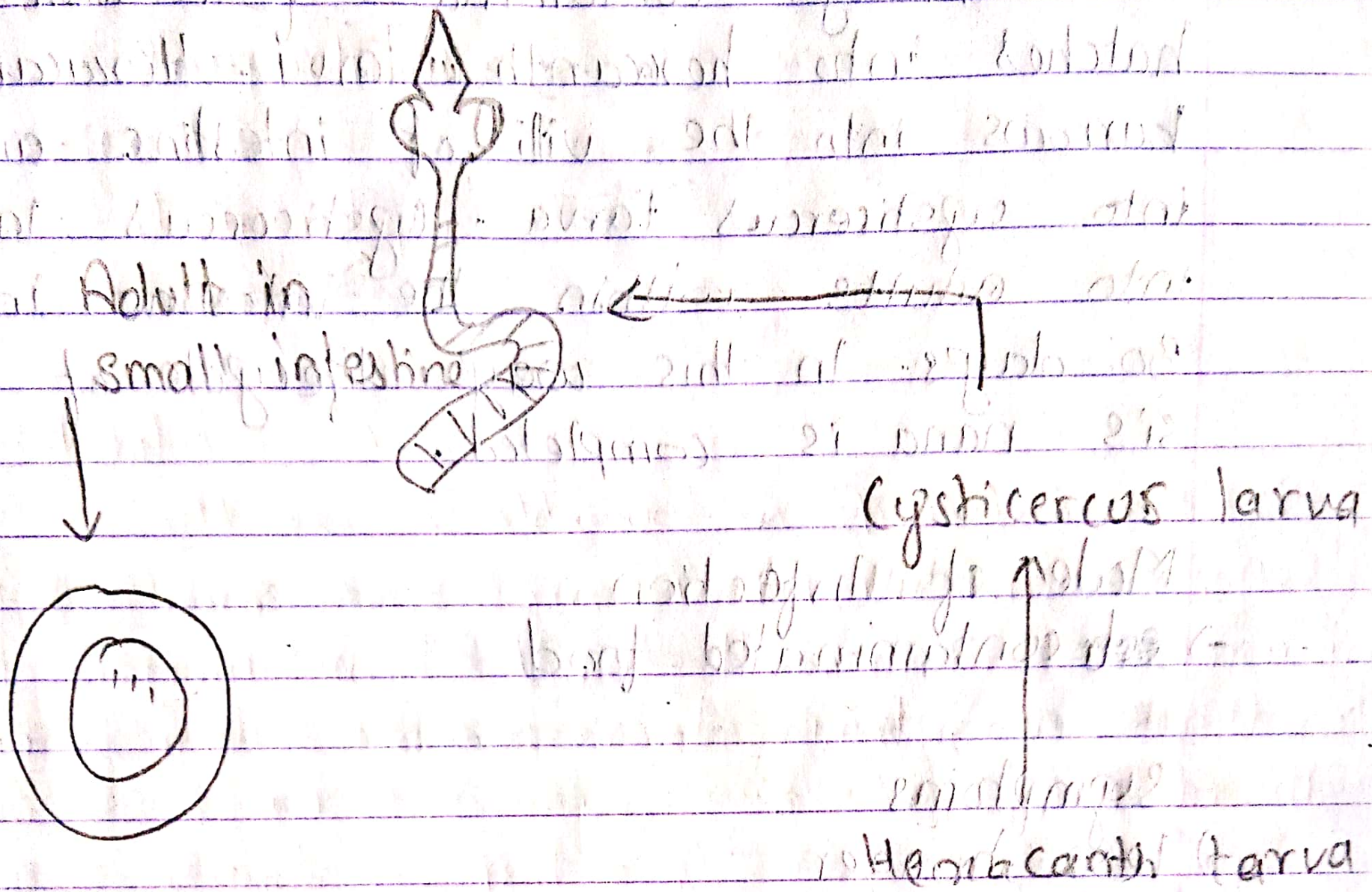
i) Adult worm

It is one of the small intestinal tapeworm. It measures about 1-4 cm in length. The lifespan of the adult worm is about 2 weeks. The body consists of scolex, neck and proglottids. Scolex is globular and consists of four suckers and 20-30 hooklets. Neck is long and cylindrical. Proglottids are about 200 in number and differentiated into immature, mature and gravid.

ii) Eggs

Eggs are spherical or oval in shape. Eggs are covered by double membrane and enclosed oncosphere. Oncosphere contains 6 hooks.

Lifecycle



Eggs in the faeces of infected person

↳ Ingested by man through the contaminated food

Fig: Lifecycle of Hymenolepis Nana

It is a monogenetic parasite and its lifecycle is completed into a single host. The secondary host is absent and entire development from larva to the adult occurs in the single host. i.e. man.

Adult worm lives in the small intestine of man. After fertilization eggs passes outside of the host through the faeces from gravid

proglottids. When the eggs are ingested by man through contaminated food then eggs hatched into hexacanth larva. Hexacanth larva burrows into the villi of intestine and develops into cysticercus larva. Cysticercus larva develop into adults within the intestine in about 30 days. In this way lifecycle of *Hymenolepis nana* is completed.

Mode of Infection

→ ~~contaminated~~ contaminated food

Symptoms

- less hunger
- Abdominal pain
- Allergy occurs
- diarrhoea
- headache

Treatment

→ Mepaerine

Preventive measures

- Avoid uncooked food
- Drink boiled water
- Dispose waste
- washing hand after using toilet and before eating.