

Tikrit University

College of Nursing

Basic Nursing Sciences



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Microbiology

Helminthes

By: lecturer

Dr. Huda Dhamin Abd Al-jabar

Helminthes

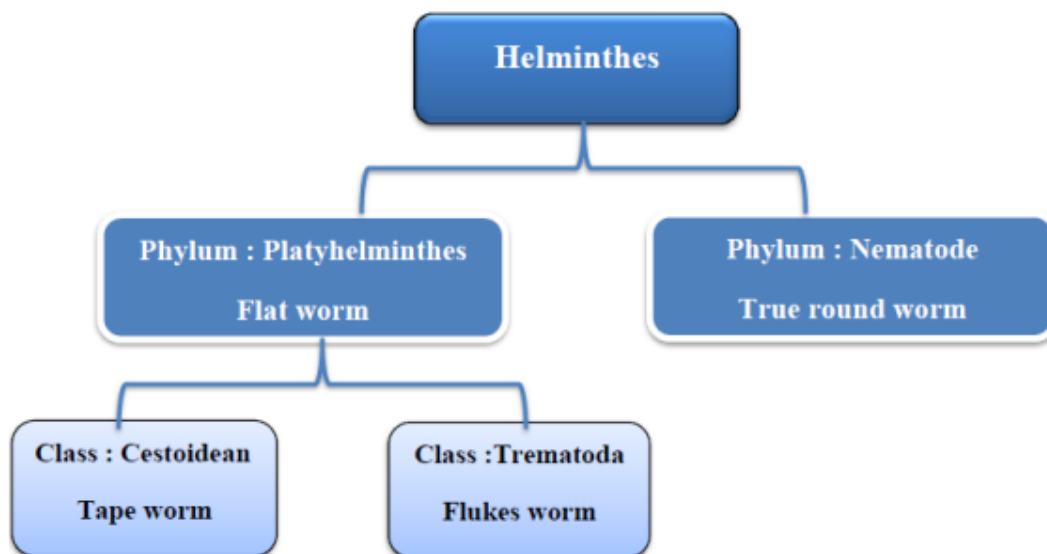
Helminthes are classified into :

A- Platyhelminths Phylum (flat worms) divided into two classes :

1- Cestodes class

2- Trematodes class

B- Nematelminthes Phylum (Class Nematoda or round worm)



Platyhelminths Phylum (flat worms)

Cestode Morphology:

The body of cestoda called strobilla consist of 3 part :

1. Scolex(head): - All cestoda has scolex but different in shape for each worm and help attachment in host tissues and used in diagnosis.

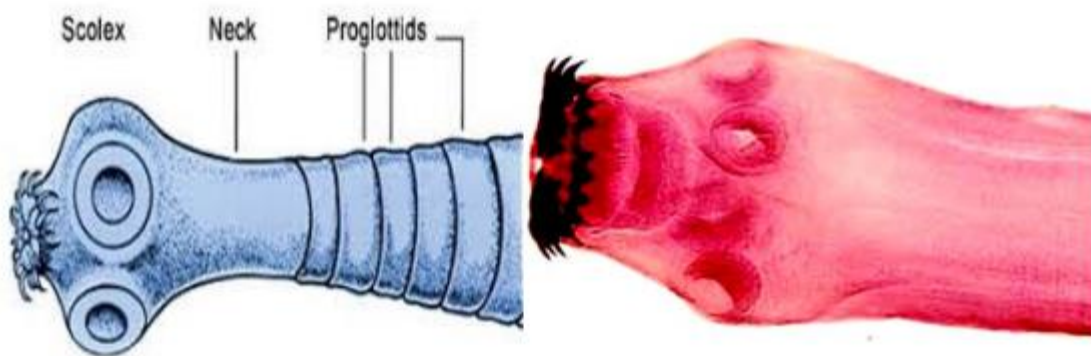
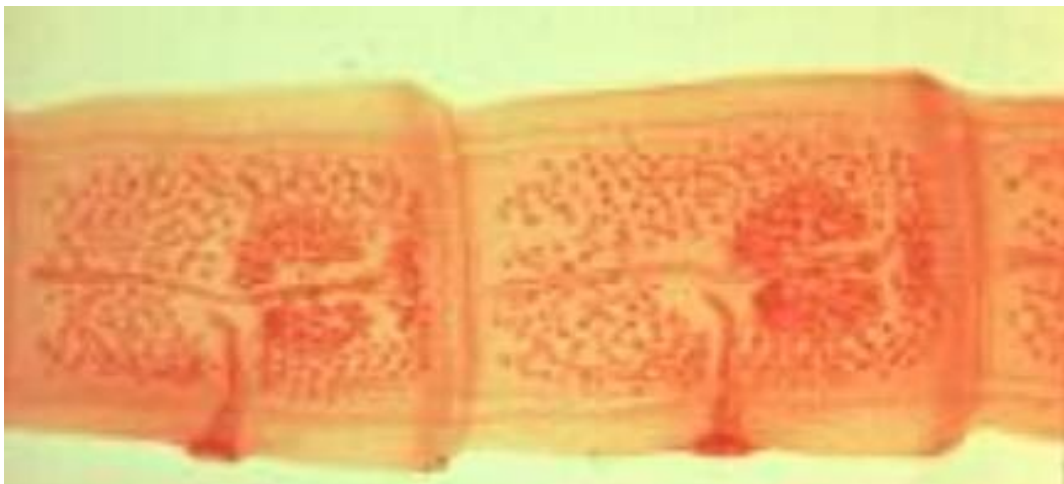
2. Neck: It is narrow and unsegmented , the segmentation or strobilization occurs in neck.

3. Proglottid (segments) – There are three types of segments in strobilla :

- Immature segments: located near from the neck and the sex organs are immature.

-Mature segment: It is containing both male and female organs and sex organs are fully mature.(presence numbers of ovaries and testis)

-Gravid segments: it is look like a sac filled with fertilized eggs. The gravid segment is separated from the strobilla and appear with stool.



Phylum : Platyhelminthes.

Class : Cestoidean

Order : Cyclophyllidea .

Genus : 1) Taenia

2) Echinococcus

3) Hymenolepis

1- Taenia:

A. Taenia saginata

B. Taenia Solium

General Properties:

-Common name: Beef tapeworm (Taenia saginata).

Pork tapeworm (Taenia Solium) .

-Final host : man

Intermediate host: cow (Taenia saginata). pig (Taenia Solium)

-Disease : Taeniasis , beef tapeworm infection.

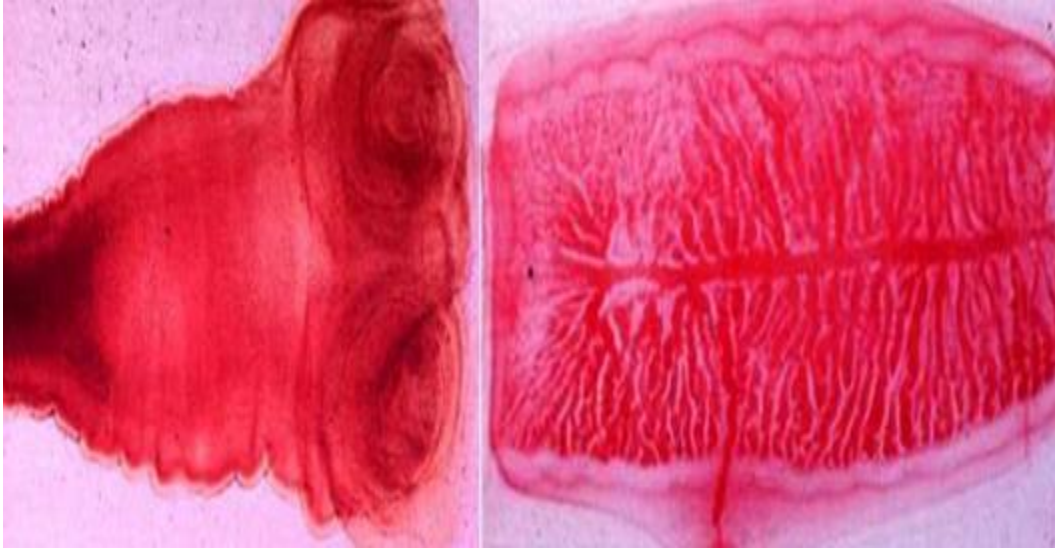
Taeniasis(adult), cysticercosis (Larva) .

-Habitat : Wall of small intestine

-Body region:

1. Scolex (Head): The hold fast organ

2. Neck: Posterior to the scolex .



3. Stobilla(trunk) : made up of proglottid.

-Stages : Adult worm , Egg , Larva .

-Infective stage : *T. saginata* (Larva: *cysticercus bovis*)

T. solium (Larva: *cysticercus cellulosae*)

-Diagnostic stages : proglottid or egg

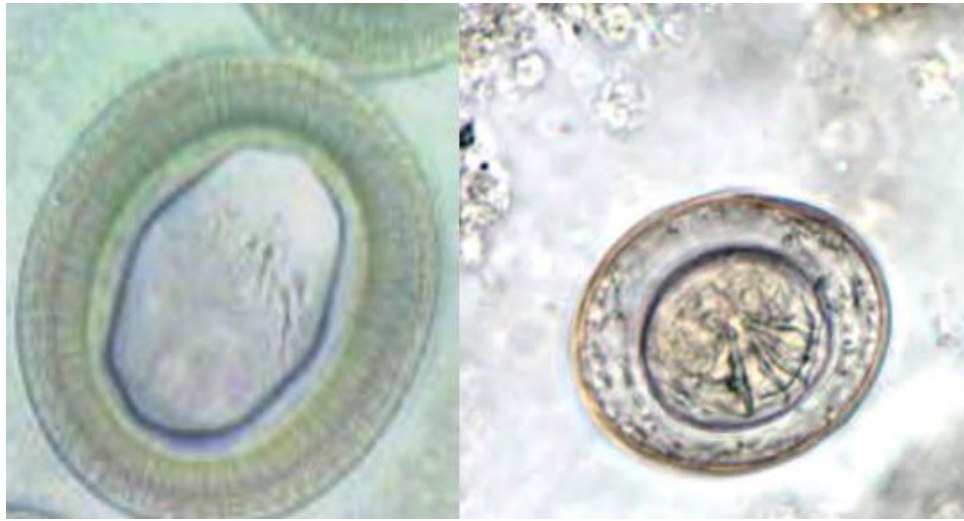
-Reproduction : Tape worms are Hermaphrodites.

Laboratory Diagnosis:

1. Demonstration of proglottid or egg in faeces.

2. Serodiagnosis: IHA, IFA, EIISA.

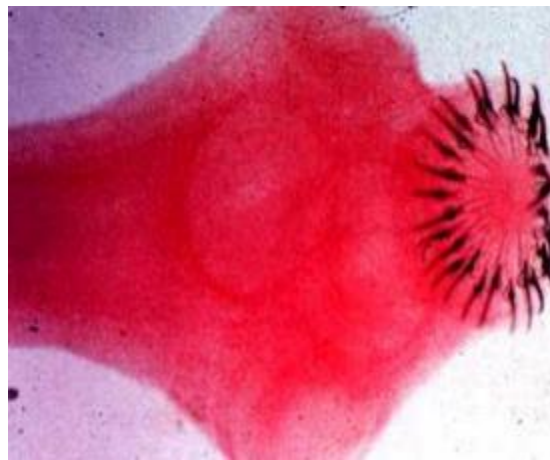
3. Adhesive tape technique. / Egg of *Taenia*



Taenia solium (Adult)



Cysticercus



Scolex of *Taenia Solium*

