

Specimens--

1) *Tenia Saginata*, common tape worm.

2) Hydated Cyst, *Tenia Echinococcus*.

3) *Ascaris Lumbricoidea*, round worm.

4) *Ascaris Mystax*, round worm of the cat.

5) *Eustrangylus Gigas*, in kidney of a husky dog.

1) *Tenia Solium*.—The armed or ordinary pork tape worm. The *tenia solium* received its name because it was thought to exist as a solitary parasite in the bowel, but this is not correct as two or even more may occur. This form of *tenia* is not common in this country, being more frequently met with in Europe and Asia. When mature it is from 6 feet to 12 feet long, the head is small, round, not as large as the head of a pin and is provided with four sucking disks and a double row of hooklets, hence called in contradistinction to the other form of worm found in man, the armed tape worm. To the head succeeds a narrow threadlike neck, then follow the worm-segments or proglottides. In a 10 foot worm there may be as many as 80 of these proglottides each segment is hermaphroditic, and about the 450th from the head become mature and contain ripe ova. The worm attains its full length in from 3 to 3 1-2 months, after which time segments are continually shed and appear in the stools.

The history of the human tape-worm is briefly as follows: The eggs eaten by the hog are developed in its body into the larval worm or scolex, called at this stage the cysticercus cellulosa, the pork afflicted with these elements being known as "measely pork." The head with its suckers is found and the body becomes flask shaped. The cysticercus thus bury themselves in the flesh of the hog and are transferred living, in uncooked meat to the alimentary canal of man. The body now elongates and new joints arise behind the head until the form of the mature tape worm is attained. The under joints become filled with eggs, break from the parent worm and escape

from the intestine of their human host. Sooner or later these ripe eggs gain entrance to the alimentary canal of the unclean animal, the hog, and the cycle of generations begins anew.

2) *Tenia Saginata* Mediocanellata.

This the unarmed or beef tape worm, bears a close resemblance to the *Tenia Solium*, but it is generally longer and its segments or proglottides are more numerous and of greater length. It is decidedly the common tape worm of this country. Of scores of specimens examined by Osler almost all were of this variety. It may attain a length of 15 to 24 feet or more; the head is three times the size of that of the *Tenia Solium*, is square shaped, with four large sucking disks, but there are no hooklets. In the larval form the worm infests the flesh of the ox and calf, and is therefore more apt to be developed in persons who have eaten imperfectly cooked beef or veal.

3) *Tenia Echinococcus*.—The mature worm is rarely longer than 1-4 inch and consists of 3 or 4 segments. In the larval form it constitutes the hydatid which occurs in the human subject, especially in the liver. The history of the hydatid is as follows: Diseased offal is thrown to the dog. The animal passes by the bowel, either in the stream or on the field, segments of the developed worm. These segments are swallowed by sheep or cattle. Eventually the animal by which these segments have been swallowed become the food of man, and then the larval worm becomes developed into a bladder-like cyst, a hydatid.

4) *Brothiocephalus Lotus*.—This is the largest of the tape worms which infect the human subject. It is very rarely met with in this country, being common in Russia and Poland.

II. Nematodo (round worms).—These possess a mouth and alimentary canal. The majority are parasitic only during a part of their existence and they are unisexual.

1) *Ascaris Lumbricoidea*.—Ordinary round worm—This parasite varies in length from 6 to 16 inches, and closely resembles the ordinary earthworm in appearance. The fecundity of this entozoon is remarkable as the body