

Parasitology

Sami Bdair

Science



Nematoda (Round worms)



Objectives:

- 1. Study the characteristics and morphology.
- 2. Example of Nematoda (*Entrobius vermicularis*).
- 3. Study the life cycle of Entrobius vermicularis.
- 4. Study the pathogenesis.
- 5. Study the diagnosis.
- 6. The treatment.



characteristics and Morphology



- 1. The most abundant organisms on earth.
- 2. Bilaterally symmetrical.
- 3. Pseudocoelomates: fluid filled body cavity not lined with peritoneum.
- 4. Posses only longitudinal musculature.
- 5. Range in size from 1mm. to over meter.
- 6. Mostly are dioecious (separate sexes), some species are hermephrodite.
- 7. Complete digestive system.





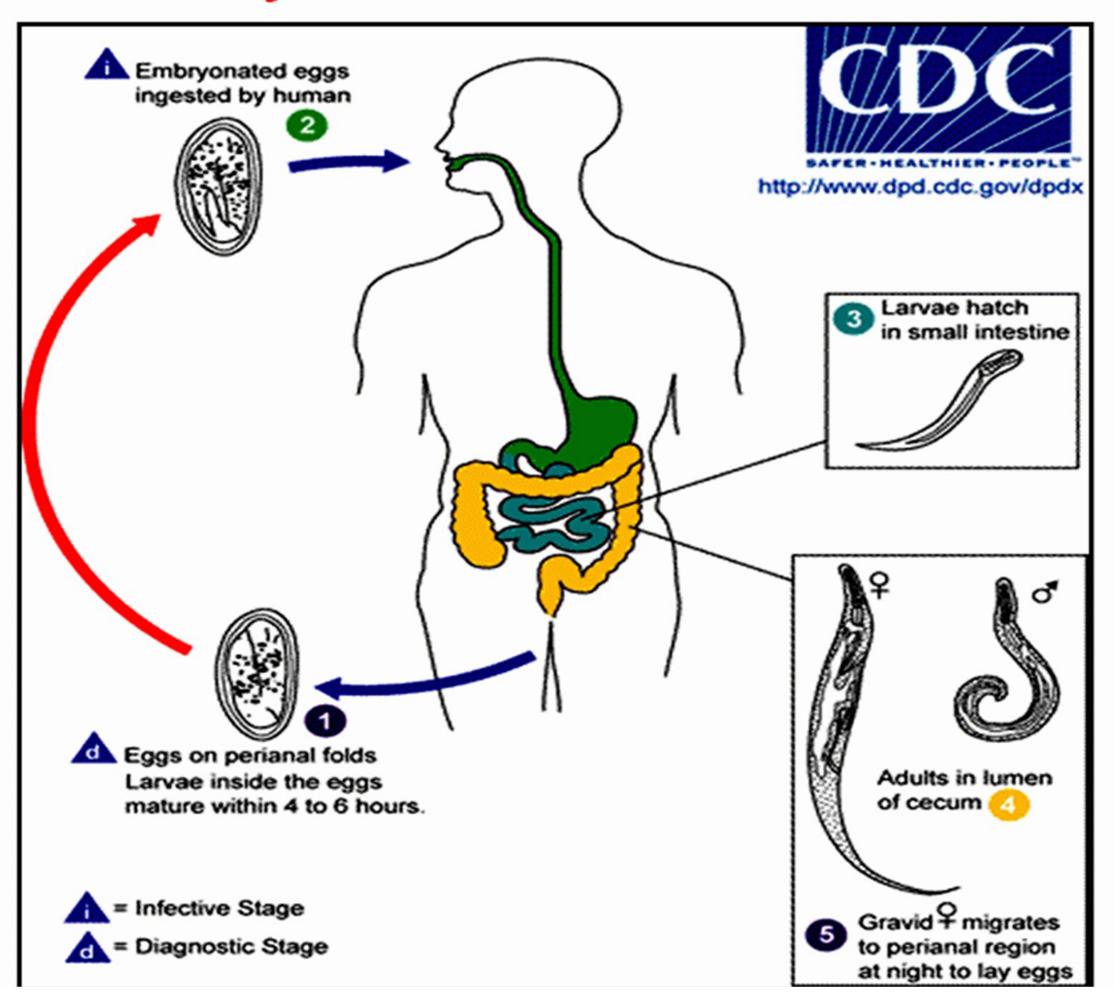
- 8. Free living and paresitic.
- 9. Outer surface composed of cuticle.
- 10. Basic life history
 - * Individuals molt four times to reach adulthood.
 - * Egg \longrightarrow hatch \longrightarrow L1 \longrightarrow L2 \longrightarrow L3 \longrightarrow L4 \longrightarrow adult.

In most species (L3) juvenile is infective to host.

- 11. May or may not require an intermediate host.
- 12. The male is smaller than female and has posterior curved end or copulatory bursa (spicules).

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Life cycle of Enterobius vermicularis





pathogenesis



- 1. Poor appetite, loss of sleep, weight loss, abdominal pain and vomiting.
- 2. Slight eosinophilia has been reported.
- 3. Severe irritation in the perianal area.
- 4. In girls female worms move to the vagina and cause valva irritation.



Diagnosis



- 1. By finding the adult on the faces or in the irritation perianal region.
- 2. By finding eggs in the faces.
- 3. Ab/Ag reaction.
- 4. PCR (polymerase chain reaction).



Treatment



Mebendazole (vermox) drug.







At the end I hope that the previous objectives have been achieved.

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orms (enterobius vermicula

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