

Lab #7

Heartworm Diagnostics

Pet Diagnostic Worms

What you should accomplish during Lab #7.

1. After an introduction, students will prepare & examine a **HW Blood Drop and a Knotts test.**
2. After an introduction, students will become familiar with adult nematodes & acanthocephalan of dogs & cats that are of diagnostic importance.

Techniques

Blood Drop Test

- 1) Place a small drop of whole blood on a microscope slide.
- 2) Cover with a cover slip
- 3) Examine with 4X & 10X.
- 4) Note: This is mainly used as a quick diagnosis for Heartworm infection. The microfilariae that occur in the blood stream are seen as small motile worms among the blood cells.

Modified Knott's Test

- 1) Label a 15 ml centrifuge tube
- 2) Add 10 ml of lysing solution (2% formalin) to the centrifuge tube.
- 3) With a pipette add 1.0 ml of blood (1 drop at a time) into the lysing solution and mix thoroughly.
- 4) Centrifuge for 5 minutes.
- 5) Pour off & discard the supernatant
- 6) Add one drop of stain to the sediment and mix
- 7) Place one drop of the sediment on a microscope slide, cover, and examine with 4X, 10X.

Exercises

1. **Heartworm Diagnostics.**
 - a) Perform a Blood Drop test & Knotts test on the provided dog blood.

2. Examine specimens of common adult nematodes & acanthocephalan often found in pet vomitus or feces presented on the overhead monitors and on Demo tables.

Feline & Canine: *Toxocara, Physaloptera, Macracanthorhynchus*

Utilize this lab and the Parasitology website to learn these diagnostic stages as one will be responsible for identifying these on the Final Practical.