Parasitology – Tissue Nematodes

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Identify Specific Tissue Nematodes
• Trichinella spiralis
• Toxocara species

Trichinella spiralis - ova
• No eggs
• Adult worm gives birth to live larvae

Trichinella spiralis - larva
• Size
  – Juvenile: 75-120 µm long, 4-7 µm wide
  – Mature: up to 1 mm in length
• Coiled
• Encysted in nurse cells of striated muscle

Trichinella spiralis
• Specimen of choice
  – Tissue biopsy
• Diagnosis
  – ID encysted larvae
  – Serology

Trichinella spiralis
• Clinical significance
  – Trichinosis / Trichinellosis
  – Ingest undercooked, contaminated meat
• Symptoms
  • Varies based on site of infection
  • May mimic other diseases / conditions
Toxocara species

- Specimen of choice
  - Serum
- Diagnosis
  - Serology
  - Eosinophilia

Toxocara species

- Clinical significance
  - Visceral larval migrans
  - Ingest eggs, develops into 2nd stage larvae and migrates to tissue where it encysts
  - Symptoms
    - Hepatomegaly
    - Chronic pulmonary inflammation with cough and fever

In Summary …

- Specimens
- What to look for
- Key characteristics of tissue nematodes
- Clinical significance