

Trichinosis

Epidemiology

Source:

Animals (pigs & other carnivores)

Transmission

- Ingesting raw or undercooked meat containing *Trichinella* larvae
- NOT person-to-person

Infectious dose:

>50 larvae

Incubation 1-2 weeks

Asymptomatic cases.

Clinical case definition :

- Nausea, diarrhea, vomiting, fatigue, & abdominal discomfort during the first week of illness
- Followed by headache, fever, chills, cough, eye swelling, muscle aches, itchy skin

Complications

- Pneumonitis
- Myocarditis
- Neurologic complications
- Death

Epi Profile

Sporadic cases in LA. < 1 case /year
Rarely food-borne outbreak: Jerky, sausage

Foodborne outbreaks

Diagnosis

Microbiology: Nematodes (round worms) of the genus *Trichinella*. There are 5 infectious species, with *Trichinella spiralis* being the most common cause of human infections.

Lab Diagnosis

- Eosinophilia approaching 70%, increased muscle enzymes (creatinine phosphokinase & lactic dehydrogenase)
- **Serologic tests:** ELISA test is most common. IgG antibodies can be detected 2 weeks after infection.
- **Muscle biopsy:** Fresh tissue compressed between 2 microscope slides to inspect for encapsulated larvae in skeletal muscle. This test is less commonly performed, but it allows for the molecular identification of the genus and species. Tests can be sent to CDC for confirmation
- Identification of larvae in suspect meat that has been consumed by the patient is sufficient for diagnosis.

Probable: Clinically compatible case who has eaten raw or undercooked game or pork
Confirmed: Clinically compatible case that is laboratory confirmed

Treatment, Prophylaxis

Treatment

- Melbendazole or albendazole are both acceptable treatments for Trichinosis.
- Coadministration of melbendazole or albendazole with corticosteroids may be used for severe illnesses to alleviate symptoms of the inflammatory reaction.

Prophylaxis

- People who have ingested contaminated meat recently should be treated with melbendazole or albendazole.

Standard Precautions

Control

Report case to OPH

Safe food handling is the best way to prevent Trichinosis:

- All meat should be cooked to safe temperatures-- between 145°F -165°F depending on the type of meat
- Drying, smoking, or microwaving meat will not kill infective worms. Use caution with homemade jerky or sausage.
- Freezing game meats may not kill infective worms.

To prevent trichinosis in animal populations:

- Avoid feeding uncooked garbage to pigs
- Prevent cannibalism
- Effective rat control