



Infectious Disease Epidemiology Section
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TRICHINOSIS (TRICHINELLOSIS)

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Trichinosis is a disease caused by *Trichinella spiralis*, an intestinal roundworm found in animal hosts such as swine, dogs, cats, and many wild animals.

Epidemiology

Cases are usually sporadic and outbreaks localized in areas where noncommercial preparation of sausage and other meat products using insufficiently cooked meats, especially with pork content, are ingested. History of ingestion of raw or improperly cooked pork or pork products with typical clinical manifestations suggest trichinosis.

The last case of trichinosis reported in Louisiana was in 1983. All Louisiana cases have been associated with pork products including a large outbreak in 1979 in which twenty-two (22) cases were reported.

The incubation period

Clinical Description

Clinical disease in man is highly variable and can range from inapparent infection to a fulminating, fatal disease depending on the number of larvae ingested.

Infection results in partial immunity.

Laboratory Tests

Identification of larvae in leftover, suspect meat, may be the most rapid source of diagnostic information. Samples should be refrigerated and sent fresh, i.e., not preserved, to the Central Lab in New Orleans immediately.

Skeletal muscle biopsy can show encysted larvae ten (10) days after ingestion.

Serologic testing at CDC (usually bentonite flocculation) will confirm diagnosis. Acute and convalescent sera will confirm diagnosis but rarely become positive before the third week of illness. One red-topped tube of blood is required for each specimen. When sending in two (2) specimens (acute and convalescent), it is usually better to hold the acute sera until the convalescent sera has been collected and forwarded both at the same time. Spin blood specimen down and send in sera.

Treatment

Surveillance

Trichinosis is a condition reportable within 5 business days of diagnosis.

Case Definition

Clinical description: A disease caused by ingestion of *Trichinella* larvae. The disease has variable clinical manifestations. Common signs and symptoms among symptomatic persons include eosinophilia, fever, myalgia, and periorbital edema.

Laboratory criteria for diagnosis:

- Demonstration of *Trichinella* larvae in tissue obtained by muscle biopsy, or
- Positive serologic test for *Trichinella*

Case classification, Confirmed: a clinically compatible case that is laboratory confirmed

In an outbreak setting, at least one case must be laboratory confirmed. Associated cases should be reported as confirmed if the patient shared an epidemiologically implicated meal or ate an epidemiologically implicated meat product and has either a positive serologic test for trichinosis or a clinically compatible illness.

Investigation

The purpose of investigation is to identify the source(s) of contaminated food, to identify other individuals who shared the suspected food and to institute control measures.

Check with the physician and/or hospital on laboratory confirmation. Serologic tests (bentonite flocculation) are available through the Centers for Disease Control.

An immediate concern would be to determine the source of the infection. Check recent food history and recover all suspected foods for appropriate testing.

Identify all individuals who have eaten the suspected meal. Refer them to their medical provide for follow-up.

Prevention of transmission

Suspicion of trichinosis requires the confiscation of any remaining food.

Adequate cooking of garbage used to feed pigs is important.

Hospital precaution and isolation: Standard precautions.