

HISTOPLASMOSIS

(Reticuloendothelial cytomycosis, cavern disease, Darling's Disease)

REPORTING INFORMATION

- Class C
- Report only when epidemic is suspected
- Report by the end of the next working day
- [Confidential Case Report Care](#) (3812.11, rev. 12/81) or Telephone

AGENT

Histoplasma capsulatum, a dimorphic fungus growing as a mold in the soil and as a yeast in animal and human hosts.

CASE DEFINITION

There is currently no case definition for histoplasmosis published in the CDC "Case Definitions for Infectious Conditions Under Public Health Surveillance." Determination of an outbreak should be made based on signs and symptoms and diagnosis as described below.

SIGNS AND SYMPTOMS

Most cases are asymptomatic. The acute pulmonary form resembles influenza and produces febrile symptoms which last from days to weeks. Erythema and arthralgia may be present. The chronic pulmonary form is seen in persons over 40 years of age, usually with a history of prior pulmonary disease, and is clinically similar to pulmonary tuberculosis, causing cavitation. The disseminated form, seen more frequently in immunocompromised persons, is more serious and can be either acute or chronic. It is characterized by hepatosplenomegaly, pneumonia, mucosal ulceration, fever, and prostration.

DIAGNOSIS

- Culture: All specimens and referred isolates of *Histoplasma capsulatum* are identified with microscopic observation of the colony morphology. The ODHL refers isolates to the CDC in Atlanta for culture.
- Serology: Serologic testing consists of both complement fixation and immunodiffusion testing. An acute serum (first week after onset) and a convalescent serum (two to three weeks post onset) are required to assess a four-fold increase in titer for diagnostic purposes. H and M bands by immunodiffusion testing aid in differentiating recent or past infection

EPIDEMIOLOGY

Source

The reservoir of the agent is soil around any area where bird or bat excreta have accumulated over time, such as old chicken houses or in caves harboring bats. The excreta provide a rich organic medium in which the mold grows.

Occurrence

Worldwide, but distribution is not uniform. In the United States, the organism is common in the Missouri, Mississippi, and Ohio River Valleys. The majority of human cases are people who, for occupational, recreational, or educational reasons, disturb soil or visit caves, mines, and tunnels where the organism has proliferated. In endemic areas, up to 80 percent of the population has been found positive on histoplasmin test, indicating previous infection. The organism is common in soils throughout Ohio.

Mode of Transmission

Inhalation of the organism when the soil is disturbed by activities that disperse the agent, such as excavating land and demolishing old structures frequented by bats or birds. Not directly transmitted from man to man or from animals to man, although animals can acquire the infection from the same

sources.

Incubation period

The incubation period is from 5-18 days.

PUBLIC HEALTH MANAGEMENT

Case

Treatment

For disseminated or chronic pulmonary cases, antifungal drugs are available.

Isolation

No isolation required.

Prevention And Control

Reducing people's exposure to dusts by spraying water or a three percent formalin solution on the ground when cleaning potentially contaminated areas might be beneficial . Persons working in such areas should wear disposable cover apparel and a face mask capable of filtering out particulate matter larger than 1 millimicron.