

Coccidioidomycosis :

In medicine, coccidioidomycosis commonly known as cocci, valley fever as well as California fever, desert rheumatism or San Joaquin valley fever, is a mammalian fungal disease caused by *Coccidioides immitis* or *Coccidioides posadasii*.

Coccidioidomycosis is endemic in certain parts of the United States in Arizona, California, Nevada, New Mexico, Texas, Utah and northern Mexico.

C. immitis is a dimorphic saprophytic fungus that grows as a mycelium in the soil and produces an spherule form in the host organism.

It resides in the soil in certain parts of the central and South America.

C. immitis is dormant during long dry spells, then develops as a mold with long filaments that break off into airborne spores when it rains.

The spores, known as disruption of the soil, such as during construction, farming, or an earthquake.

Coccidioidomycosis is a common cause of community-acquired pneumonia in the endemic areas of the United States.

Infections usually occur due to inhalation of the arthroconidial spores after soil disruption.

The disease is not contagious. In some cases the infection may recur or become chronic.

signs and symptoms:

An estimated 60% of people infected with the fungi responsible for coccidioidomycosis have minimal to no symptoms, while 40% will have a range of possible clinical symptoms.

Notable coccidioidomycosis is responsible for 20% of cases of community-acquired pneumonia.

Notable coccidioidomycosis signs and symptoms include a profound feeling of tiredness, loss of smell and taste, fever, cough, headaches, rash, muscle pain, and joint pain.

Diagnosis:

Coccidioidomycosis diagnosis relies on a combination of an infected person's signs and symptoms, findings on radiographic

imaging, and laboratory results.

The fungal infection can be demonstrated by microscopic detection of diagnostic cells in body fluids, ~~detection of~~ sputum and biopsy tissue by methods of Papaniolou or Grocott's methenamine silver staining. These stains can demonstrate spherules and surrounding inflammation.

Prevention:

Preventing Valley fever is challenging because it is difficult to avoid breathing in the fungus should it be present.

The use of air filtration indoors is also helpful, in addition ~~may~~ be advised to avoid skin infection.

Treatment:

Significant disease develops in fewer than 5% of those infected and typically occurs in those with a weakened imm

system.

Mild asymptomatic cases often do not require any treatment, and symptoms will go away within a few months.

Those with severe symptoms may benefit from anti-fungal therapy, which usually requires 3-6 months of treatment.

There is a lack of prospective studies that examine optimal anti-fungal therapy for coccidioidomycosis.

Epidemiology:

Coccidioidomycosis is endemic to the western hemisphere between $40^{\circ}N$ and $40^{\circ}S$.

The ecological niches are characterized by hot summers and mild winters with an annual rainfall of 10-50 cm.