



Cryptococcal Meningitis

Cryptococcal meningitis is a life-threatening infection of the membranes (meninges) that line the brain and spinal cord. Cryptococcal disease is caused by a fungus. Most people have been exposed to this organism, which is found in soil contaminated by bird droppings, but it usually does not cause disease in healthy people. The majority of people with cryptococcal meningitis have immune systems that are damaged by disease, such as AIDS, or suppressed by drugs. The organism can infect almost all organs in the body, although it most commonly causes disease of the meninges, skin, or lungs.

Symptoms and Diagnosis

Cryptococcal meningitis affects about 10 percent of people with AIDS. The first symptoms of this infection are usually fever, fatigue, nausea, vomiting, and headache. Cryptococcal meningitis may cause a person to become confused and have memory loss. Family members or friends may note small changes in personality or behavior. If people with cryptococcal meningitis are not treated, they may lapse into a coma and die.

Doctors diagnose cryptococcal meningitis by detecting the cryptococcal organism or one of its proteins in a sample of blood or of spinal fluid, which is removed from the spine through a needle.

Treatment

Acute. People with cryptococcal meningitis are usually treated with the antifungal drug amphotericin B. Many people are also given the antifungal drug flucytosine for at least two weeks. Another treatment option is the antifungal agent fluconazole, which can be taken by mouth or given through the veins.

Amphotericin B has many side effects, including kidney damage, high fever, low blood pressure, decreased numbers of red or white blood cells, nausea, vomiting, and chills. A newer formulation of the drug, in which the active compound is encased in a fatty substance, is under study and may have fewer side effects. However, more research is needed to assess the safety and effectiveness of this new form of amphotericin B. Flucytosine also may cause serious side effects, including decreased numbers of red or white blood cells, liver damage,

nausea, diarrhea, seizures, abdominal discomfort, or rash.

Fluconazole causes fewer, less severe side effects, including skin rashes and liver enzyme abnormalities.

Maintenance. About four out of five people survive the initial phase of meningitis. However, half of those with AIDS treated for cryptococcal meningitis will experience a relapse of the disease within one year unless they receive further treatment to prevent it. This is called maintenance therapy.

To prevent relapses, most doctors recommend that people who have had cryptococcal meningitis take fluconazole daily. Other drugs used include intravenous amphotericin B taken weekly or biweekly.

Research

The National Institute of Allergy and Infectious Diseases (NIAID) funds research aimed at finding new drugs or drug combinations for the treatment or prevention of cryptococcal meningitis, as well as better ways to administer currently available drugs. Several new therapies for cryptococcal disease are being evaluated for safety or effectiveness in NIAID-sponsored clinical trials.

For more information on these or other studies, call the AIDS Clinical Trials Information Service:

1-800-TRIALS-A (1-800-874-2572)

1-800-243-7012 (Deaf Access/TDD)

For information on federally approved treatment guidelines and information, call the HIV/AIDS Treatment Information Service:

1-800-HIV-0440 (1-800-448-0440)

1-800-243-7012 (Deaf Access/TDD)

NIAID, a component of the National Institutes of Health, supports research on AIDS, tuberculosis and other infectious diseases as well as allergies and immunology.

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