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CMV pneumonia

Cytomegalovirus (CMV) pneumonia is a viral infection of the lungs that can occur in people who have a suppressed immune system.

Causes

CMV is a member of a group of herpes-type viruses. Infection with CMV is very common. Most people are exposed to CMV in their lifetime, but typically only those with weakened immune systems become ill from CMV infection.

Serious CMV infections can occur in people with weakened immune systems as a result of:

- HIV/AIDS
- Bone marrow transplantation
- Chemotherapy or other treatments that suppress the immune system
- Organ transplant (especially lung transplant)

In people who have had organ and bone marrow transplants, the risk for infection is greatest 5 to 13 weeks after the transplant.

Symptoms

In otherwise healthy people, CMV usually produces no symptoms, or it produces a temporary mononucleosis-type illness. However, those with a weakened immune system can develop serious symptoms. Symptoms may include:

- Cough
- Fatigue
- Fever
- General discomfort, uneasiness, or ill feeling (malaise)
- Loss of appetite
- Muscle aches or joint pains
- Shortness of breath
- Sweating, excessive (night sweats)

Exams and Tests

Your health care provider will perform a physical exam. In addition, the following tests may be done:

- Venous and/or arterial blood gas
- Oximetry
- Blood culture
- Blood tests to detect and measure substances specific to CMV infection
- Bronchoscopy (may include biopsy)
- Chest x-ray
- CT scan of chest
- Urine culture (clean catch)
- Sputum Gram stain and culture

Treatment

The goal of treatment is to use antiviral medicines to stop the virus from copying itself in the body. Some people with CMV pneumonia need IV (intravenous) medicines. Some people may need oxygen therapy and breathing support with a ventilator to maintain oxygen until the infection is brought under control.

Outlook (Prognosis)

Antiviral medicines stop the virus from copying itself, but do not destroy it. The CMV suppresses the immune system, and may increase your risk for other infections.

Low oxygen level in the blood of people with CMV pneumonia often predicts death, especially in those who need to be placed on a breathing machine.

Possible Complications

Complications of CMV infection in people with HIV/AIDS include spread of disease to other parts of the body, such as the esophagus, intestine, or eye.

Complications of CMV pneumonia include:

- Kidney function impairment (from medicines used to treat the condition)
- Low white blood cell count (from medicines used to treat the condition)
- Overwhelming infection that doesn't respond to treatment
- Resistance of CMV to standard treatment

When to Contact a Medical Professional

Contact your provider if you have symptoms of CMV pneumonia.

Prevention

The following have been shown to help prevent CMV pneumonia in certain people:

- Using organ transplant donors who don't have CMV
- Using CMV-negative blood products for transfusion
- Using CMV-immune globulin in certain people

Preventing HIV/AIDS avoids certain other diseases, including CMV, that can occur in people who have a weakened immune system.

Alternative Names

Pneumonia - cytomegalovirus; Cytomegalovirus pneumonia; Viral pneumonia

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