Aspergillus Infection Causing Fungi

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DESCRIPTION

Aspergillosis is an infection caused by Aspergillus, a common mold (a type of fungus) that lives indoors and outdoors. Most people breathe in Aspergillus spores every day without getting sick. However, people with weakened immune systems or lung diseases are at a higher risk of developing health problems due to Aspergillus. The types of health problems caused by Aspergillus include allergic reactions, lung infections, and infections in other organs. The different types of aspergillosis can cause different symptoms. The symptoms of allergic bronchopulmonary aspergillosis (ABPA) are similar to asthma symptoms, including Wheezing, Shortness of breath, Cough, Fever (in rare cases). Symptoms of allergic Aspergillus sinusitis, Stuffiness, Runny nose, Headache, Reduced ability to smell. Aspergillus, the mold (a type of fungus) that causes aspergillosis, is very common both indoors and outdoors, so most people breathe in fungal spores every day. It's probably impossible to completely avoid breathing in some Aspergillus spores. For people with healthy immune systems, breathing in Aspergillus isn't harmful.

However, for people who have weakened immune systems, breathing in Aspergillus spores can cause an infection in the lungs or sinuses which can spread to other parts of the body. Healthcare providers consider your medical history, risk factors, symptoms, physical examinations, and lab tests when diagnosing aspergillosis. You may need imaging tests such as a chest x-ray or a CT scan of your lungs or other parts of your body depending on the location of the suspected infection. If your healthcare provider suspects that you have an Aspergillus infection in your lungs, he or she might collect a sample of fluid from your respiratory tract to send to a laboratory. Healthcare providers may also perform a tissue biopsy, in which a small sample of affected tissue is analyzed in a laboratory for evidence of Aspergillus under a microscope or in a fungal culture.

A blood test can help diagnose invasive aspergillosis early in people who have severely weakened immune systems. Invasive aspergillosis , Cutaneous aspergillosis, Chronic pulmonary aspergillosis are the examples of invasive aspergillosis ,treatment includes the drugs like Voriconazole ,lipid amphotericin formulations, posaconazole, isavuconazole, itraconazole, caspofungin, and micafungin. Treatment for invasive aspergillosis when possible, immunosuppressive medications should be discontinued or decreased. People with severe cases of aspergillosis may need surgery. A definitive diagnosis of aspergillosis typically requires a positive culture from a normally sterile site and histopathological evidence of infection. Other diagnostic tools include radiology, galactomannan antigen detection, Beta-D-glucan detection, and polymerase chain reaction (PCR).

Microscopy: Evaluation of respiratory specimens after the application of special stains can allow for visualization of Aspergillus elements. They appear as septated hyphae with acute angle branching. However, definitive identification is difficult to make by this method alone as it is insensitive and even when positive; several filamentous fungi have a similar microscopic appearance. Aspergillus appears as septated hyphae with acute angle branching and can be mistaken for other filamentous molds.

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