

Aspergillosis

Aspergillosis is caused by the species of Aspergillus especially A. fumigatus.

For the first time in 1856, VIRCHOW reported Aspergillosis in man.

Recent studies reveal that Aspergillosis is becoming important in patients with disease like leukemia, and Lymphoma and the patients receiving immunosuppressive therapy for a wide range of illness.

Occasionally Aspergillosis occurs in sinuses, bronchi, lungs and other parts of body as well.

A. fumigatus is a recognised pathogen of birds, animals and man as well.

It is generally a occupational disease among those who handle and feed squabs, fur & hairs.

Other species of Aspergillus viz: A. niger, A. clavatus, are also known to be associated with pulmonary Aspergillosis.

Epidemiology: It is a sporadic and worldwide in distribution. It is not contagious but the sources of infection are exogenous. It does not differ with age, sex or race. Contaminated mouldy cereals ^{grains} are one of the source. It is also found during early decomposition of vegetables. A. fumigatus being a saprophyte grows on decaying organic materials.

Clinical Types of Aspergillosis:-

- ① Pulmonary Aspergillosis:- A. fumigatus is most virulent and versatile among the Aspergilli. It causes pulmonary Aspergillosis. It is characterized by granulomatous lesions in lung parenchyma, which may spread to kidney etc. Symptoms like fever, cough, weight loss and toxemia. Another type A fungus ball is produced which is nothing but mass of mycelium and cell debris which is characterized by the presence of A. niger and A. fumigatus.
- ② Myocarditis - It is fatal in patient with primary and predisposing disease. It is caused by A. flavus, and A. fumigatus.
- ③ Otomycosis - Caused by A. niger. Occurs in Crumen, epithelial scale and deep in external canal.
- ④ Bronchopulmonary Aspergillosis:- It is characterized by frequent pyrexial attack with severe cough purulent occasionally blood tinged sputum.

Cultural characters - ① Grown on Sabouraud's glucose agar medium. A. fumigatus grows rapidly form white colony. After spore formation, it becomes dark green & powdery. Conidia produces spores. Fungi produces endotoxins. However neurotoxin and other toxins also isolated.

Therapy ① Surgery is suggested in certain Pulmonary Aspergillosis
② Sodium iodide and KI (orally) cured the disease.
③ Antibiotic is Amphotericin-B =