Cryptococcosis

Cryptococcosis is a fungal infection caused by Cryptococcus spp. that enters the body via inhalation, which mainly invades the lungs and central nervous system.

It is particularly important in the era of the HIV/AIDS epidemy. The encapsulated yeast-like fungus was first isolated from fruit juice by San Felice in 1894 and was shown to be present in natural sources such as milk. Various types of soil contaminated with pigeon excretia provide an environmental source of this widely prevalent organism [1)].

Infection occurs through inhalation of a small diameter (<10 µm) yeast-like organism, which enters the respiratory passage but then remains dormant depending on the host reaction [2)].

The mode of spread to the CNS is through haematogeneous dissemination from the lungs. Subsequently, the fungus spreads to the CSF to cause meningitis, encephalitis and ependymitis; it is this leptomeningeal spread that is responsible for the clinical manifestations, rather than choroid plexitis alone, which is often asymptomatic [3)].

The CNS is the preferred site for crpytococcal infection, as the soluble anticryptococcal factors present in serum are absent from CSF. In addition, the inflammatory response evoked is minimal, as the polysaccharide capsule of the fungus hinders phagocytosis and impairs leukocyte migration [4)].

see Cryptococcus gattii.

see also Cryptococcal choroid plexitis.

Diagnosis

Cryptococcosis Diagnosis.

Treatment

The choice of antifungal treatment depends on the site of infection and the immune status of the patient; options include polyene-amphotericin B (Amp B), azoles (fluconazole, itraconazole) and flucytocine. Serially preformed lumbar punctures may serve to reduce headache in a patient with raised intracranial pressure. The surgical option is reserved for patients with hydrocephalus and intracranial hypertension [5)].

1)
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