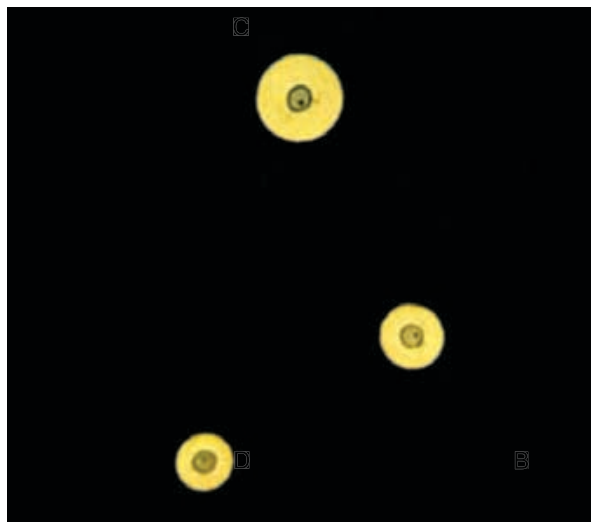


Microscopy in the diagnosis of the cryptococcal meningitis.

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Preparation of fresh cerebrospinal fluid with Indian ink, observed in bright field with 40X on optical microscope. Can appreciate how *Cryptococcus neoformans* yeast has a large polysaccharide capsule, which does not stain with the colorant, providing this feature to make microscopic diagnosis.

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The diagnostic microscopy is a useful tool in the microbiology laboratory to identify some pathogens efficiently and quickly.

Cryptococcus neoformans is a yeast form encapsulated fungus which can infect the central nervous system; is ubiquitous in the environment and is related with pigeon's feces and lesser extent with bats worm. The penetration is fundamentally by airway and rarely by digestive tract and skin^{1,2}. The risk groups are patients with HIV infection (78.1%), undergoing corticosteroid and anti-tumor necrosis factor antibody treatments (4.1%), autoimmune disease (2.3%), solid or malignant tumor (1.9%), transplant recipients (1.3%), diabetes mellitus (1.1%), liver cirrhosis (0.9%), chronic renal failure (0.3%) and non established cause (13.2%)^{3,4}. The cryptococcal meningitis presents with headache, neck stiffness, fever, vomiting, seizures, mental confusion, etc. The medical management includes draining to alleviate the intracranial hypertension, also antifungals like amphotericin, flucytosine and fluconazole for an extended period.

The capsule of the *C. neoformans* is too big which allows identify easily by a microscope: is added to the cerebrospinal fluid (CSF) a drop of the Indian ink (the same one used in the stationery

stores) and is observed in the strong dry objective (40X). Is wanted an oval structures of 15µm of diameter with a clear halo immersed in the used ink². Staining is cheap and quick, besides presenting a specificity close to 100%. However, despite of these advantages, Indian ink staining has a limited sensitivity; therefore, the cultivation and capsular antigen detection by ELISA are useful options to improve the diagnostic capacity, particularly in cases where fungal charges are low.^{4,5}

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