

**Title: FLUORESCENT IN SITU HYBRIDISATION FOR DETECTION *Cryptococcus sp* WHIT PATIENTS CEREBROSPINAL FLUID SAMPLES WITH HIV / AIDS HOSPITALIZED IN TROPICAL MEDICINE DOCTOR FOUNDATION HEITOR VEIRA DOURADO.**

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**Abstract:**

The number of invasive fungal infections has increased over the past decades. This phenomenon is the result of the growing number of pathological conditions that change the immune system. Cryptococcosis is a systemic mycosis acquired by inhalation of infectious propagules produced by *Cryptococcus* yeast complex. This mycosis is associated with a significant morbidity and mortality and it is the most common invasive fungal infection in patients with HIV. This disease has an incidence of 1 million cases per year and it is mainly caused by *C. neoformans* and *C. gattii*, where this last infects primarily immunocompetent individuals. The study objective was to detect and identify *Cryptococcus* complex of fungi in cerebrospinal fluid samples from patients with HIV / AIDS at the FMT-HVD using fluorescence in situ hybridization (FISH), and comparing the results obtained through conventional methods. Approximately 100 samples were collected of CSF and received at the Mycology Laboratory (FMT-HVD). These samples were undergone to conventional identification tests for *Cryptococcus sp* research (direct examination and culture). Also these samples were processed by fluorescence molecular technique that is called in situ hybridization (FISH), which used a probe specific for *Cryptococcus sp*, (5'CCAGCCCTTATCCACCGA 3') described by Martins, 2010. Finally, the results obtained were compared by both methods in order to determine the quality of the FISH technique. Among 100 samples tested, 57 were positive (57%) by conventional detection method. In the other hand, through the FISH technique 59 samples were of positive (59%). The FISH technique proved to be useful obtaining a concordance of approximately 98% when it was compared to conventional detection method, which is the standard method routinely used. Thereby, it is necessary a greater applicability in this tool, so this way, it can help in the routine microbiological diagnostic laboratories.

**Key-words:** criptococosis, detection, FISH.

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