

# Direct fluorescent examination in the diagnosis of tinea capitis

## Exame direto por fluorescência no diagnóstico de tinea capitis

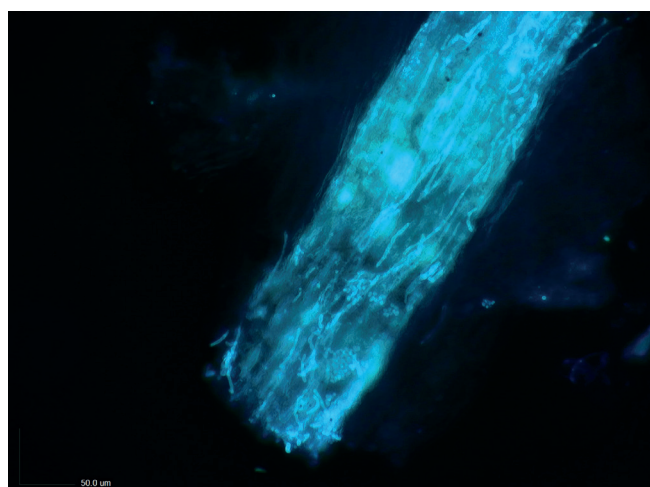
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Tinea capitis is a fungal infection of the scalp, typically caused by dermatophyte fungi from the genera *Trichophyton* and *Microsporum*. For laboratory diagnosis, direct mycological examination is essential. In this type of infection, hyaline septate hyphae and conidia can be observed. The conidia appear as rounded or oval structures, often forming chains or clusters.

Clinically, laboratories usually employ a 10-40% potassium hydroxide (KOH) solution for sample clarification during direct mycological examination. However, fluorescence-based methodologies (Figure 1) have demonstrated high efficacy, significantly increasing sensitivity, especially when fungal load is low or when fungal elements are small and difficult to visualize.

Image depicts the direct fluorescent mycological examination using the dye Blankophor, where parasitism on hair can be observed, showing hyaline septate hyphae and conidia. The image was captured using a Zeiss Axioskop-2 Mot Plus microscope with a DinoCapture 2.0 imaging system. The fluorescence filter used was DAPI, with an excitation wavelength of 358 nm and an emission filter at 461 nm.



**Figure 1**

Exame micológico direto a fresco por fluorescência com Blankophor

## REFERENCES

1. Rüchel R, Schaffrinski M. Versatile fluorescent staining of fungi in clinical specimens by using the optical brightener Blankophor. *Journal of Clinical Microbiology*, v. 37, n. 8, p. 2694-2696, 1999. DOI: 10.1128/JCM.37.8.2694-2696.1999.
2. Silva CS da, Neufeld PM, Gouvêa EH, Abreu PA. Etiology and epidemiology of tinea capitis: case series report and literature review. *Revista Brasileira de Medicina*, v. 75, n. 4, p. 123-130, 2018. DOI: 10.21877/2448-3877.201800781.

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