

## Conventional Methods for the Diagnosis of Dermatophytosis

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R sum  en anglais Dermatophytes are keratinolytic fungi responsible for a large variety of diseases that can affect glabrous skin, nails and hair. In many cases, the diagnosis is not clinically obvious, and mycological analysis is required. This includes both direct microscopic examination and cultures. First of all, clinical specimens have to be sampled according to localization and characteristics of the lesions. Direct microscopic examination is usually performed using clearing reagents (KOH or Amman's chloral-lactophenol), but its sensitivity may be greatly enhanced by the use of stains or fluorochromes such as Congo red or Calcofluor white. Histological analysis is an efficient method, but it is constraining for the patients and, as direct examination, it does not allow precise identification of the pathogen. Cultures are therefore needed, and specific culture media may be used to overcome the growth of rapidly growing contaminating moulds which may hamper the recovery of dermatophytes. Identification at the species level which may be useful to initiate an appropriate treatment or for setting prophylactic measures, relies on macroscopic and microscopic morphology. Subcultures on culture media which stimulate conidiation and, for some species, the production of pigments, are often necessary. Additionally, in case of atypical isolates, some biochemical or physiological tests may be performed such as the search for urease activity or the in vitro hair perforation test. However, their contribution to species identification is rather limited, and progress is still needed for the development of biochemical or immunological tests allowing an accurate identification at the species level, pending for the availability of molecular biology-based kits.

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