A national survey on *Tinea capitis* in France : epidemiology and diagnostic management

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Objectives. The French Society for Medical Mycology (SFMM=Société Française de Mycologie Médicale) conducted a national survey on *tinea capitis* in France with the aim to describe the epidemiology and the methods of diagnosis.

Methods. Thirty five laboratories (26 University hospitals, 6 general hospitals and 3 private labs) answered to the survey and reported their cases during a 3-year period (2014 -2016). For each case, sex, age, and species identification were collected. Diagnostic methods were also recorded : sampling and tools, cultures (medium, temperature, duration) and identification methods for dermatophytes.

Results. A total of 2,369 cases were recorded. The 3 anthropophilic species *Trichophyton soudanense*/*T. violaceum*, *T. tonsurans* and *Microsporum audouinii*/*langeronii* were predominant, and accounted for 33%, 31% and 19% of cases, respectively. By contrast, zoophilic species such as *M. canis* (10%) were less prevalent. Males were slightly over-represented (59% of cases) and the prominent class of age was 5-10 years (45%), but globally 86% of patients were aged between 0 and 10 years. Sampling methods were mainly scraping (33/36 centers) and swab collection (20/36), most often guided by the Wood light that was available in 72% of centers. Direct examination was mostly realized with chlorazole black or chloral-lactophenol, and culture relied mainly on the combination of Sabouraud medium + Sabouraud-actidione medium, and rare others media for particular situations : Malt and Borelli media to help fructification, Brain-Heart-Infusion to detect *T. verrucosum*, etc. All labs used macroscopic and microscopic examinations of the cultures to identify dermatophytes, and 39% and 36% of labs declared to use also more recent tools such as PCR and MALDI-TOF mass spectrometry, respectively.

Conclusion. A consequent number of *tinea capitis* is still diagnosed in France. Autochthonous but also migrant populations account for more than 800 cases/year. Anthropophilic species are prominent with *T. soudanense*/*T. violaceum* and *T. tonsurans* that are mainly isolated. Sampling and identification methods are diverse and should be homogenised. New identification methods such as mass spectrometry and molecular biology are now used in more than 1/3 of the labs that answered to the survey.

SFMM Société Française de Mycologie Médicale

7. SFMM *Tinea capitis* study group :
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Epidemiology of tinea capitis in France (2014-2015-2016)

	Nb of cases 2014-2015-2016
<i>T. soudanense</i> / <i>T. violaceum</i>	738
<i>T. tonsurans</i>	779
<i>T. mentagrophytes</i>	63
<i>T. verrucosum</i>	14
<i>T. rubrum</i>	47
<i>Trichophyton sp.</i>	14
<i>M. canis</i>	251
<i>M. langeronii</i> / <i>audouinii</i>	445
<i>M. gypseum</i>	12
autre	6
Total	2,369

Diagnostic management of tinea capitis :
Direct examination and culture (N = nb of labs)

Identification methods
(% of labs)