

An audit of specimens received for superficial fungal studies to the Department of Microbiology, University of Ruhuna

H Thabrew¹, KGR Nilanthi¹, A Liyanage², A Gunasekera¹, NP Weerasinghe¹, SS Wickramasinghe¹, S Gunasena¹, WMDGB Wijayarathne¹, A De S Nagahawatte¹

Introduction

Rising numbers of recalcitrant dermatophytoses have been observed in the recent past along with changes in the pattern of the organisms causing dermatophyte infections. The objective was to audit the clinical diagnosis using direct microscopic and/ or mycological culture findings of specimens received from patients clinically suspected with superficial fungal infections.

Methods

Skin, hair, and nail specimens of patients with suspected superficial fungal infections received at the Department of Microbiology, Faculty of Medicine, University of Ruhuna from 1st January 2018 to 31st December 2019 were audited. Demographic, clinical and direct microscopic and culture results obtained from the records were included in the analysis.

Results

A total of 651 specimens were included, 60% of which were from females. The median (Interquartile range) age was 38 years (24 – 52). Clinical details were documented in 319 (49%) request forms. Significant microscopic and/or culture findings were present in 205 of the 651 specimens (31%) of which 63% (130/205) were compatible with documented clinical details while 71/205 were accompanied by request forms with no documented clinical details. Fungal infection of the nails was the commonest documented superficial fungal infection (182/319, 57%) of which 91 (50%) had significant mycological findings. Tinea corporis was the second commonest suspected condition in the study sample (64/319, 20%) with significant microscopic/culture positive findings present in 40 (62%) specimens. Tinea capitis was suspected in 52/319 patients (12%). However only 4 (8%) specimens had significant positive mycological findings. Significant positive direct microscopic and/ or culture findings were seen with 8 (25%) of the 32 specimens from patients with suspected tinea pedis and 13 (54%) of 24 specimens from patients with suspected tinea incognito. Dermatophytes were isolated from 31 specimens while positive direct microscopic findings were seen in 320 specimens.

Table 1: Summary of findings

	Clinically suspected		Mycologically proven		Dermatophytes isolated
	number	%	number	%	Number
Total	319	46	205	31	31
Onychomycosis	182	57	91	50	5
Tinea corporis	64	20	40	62	13
Tinea capitis	52	12	4	8	1
Tinea pedis	32	10	8	25	0
Tinea incognito	24	7	13	54	3
Tinea cruris	5	1	3	60	1

Conclusion

The findings of our audit show that 31% of the specimens had significant positive results. The compatibility of the clinical suspicions with the microscopic and mycological investigation findings was 63% in the studied sample. Nail was the commonest specimen received for superficial fungal studies with significant microscopic and culture findings in 50% of them.

Keywords: Audit, Dermatophytosis, Sri Lanka.

¹Department of Medical Microbiology, Faculty of Medicine, University of Ruhuna, Sri Lanka

²Department of Community Medicine, Faculty of Medicine, University of Ruhuna.

Address for correspondence: Dr H Thabrew. +94718411697 Email: harshanipj@gmail.com

 <https://orcid.org/0000-0002-3049-3585>