

TINEA CRURIS IN CHANDIGARH

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Summary

Hundred cases of tinea cruris were studied. Pathogenic dermatophytes were grown in all. *TRICHOPHYTON RUBRUM* was the commonest organism isolated (84%), followed by *EPIDERMOPHYTON FLOCCOSUM* (11%). Four patients grew more than one organism. Crural tinea was associated with tinea corporis and tinea pedis in 23 and 7 patients respectively. Maximum number (55%) of patients were seen during the summer months (March to June).

Environmental humidity and heat in the tropics help dermatophytes to take hold and grow on the macerated epidermal keratin of the crural areas. A number of studies are available from different parts of the country¹⁻⁶. The present study was undertaken to find the relative incidence of different species of dermatophytes causing tinea cruris in and around Chandigarh.

Material and Methods

Hundred clinically suspected patients of tinea cruris attending Dermatology out-patient of Nehru Hospital of Postgraduate Institute of Medical Education and Research, Chandigarh, between August, 1977 to September, 1978 were studied.

Scrapings were examined in a drop of 10 per cent potassium hydroxide (KOH) solution for fungal elements.

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A part of the scrapings was inoculated on Sabouraud's medium. The culture tubes were incubated at room temperature for 3-4 weeks. Isolates were identified by colony and growth characteristics and by microscopic morphology. Additional culture on media like corn meal agar and casein thiamine agar were carried out for identification of the species wherever necessary.

Observation and Results

Direct microscopic examination was positive for fungal elements in hundred per cent patients and pathogenic fungi were also successfully grown in all. The incidence of various organisms isolated is shown in Table-1. *Trichophyton* was the commonest genus isolated (89%), followed by *Epidermophyton* (11%). *Microsporum* species was isolated from one patient only and that too in combination with *Epidermophyton*. Four patients showed more than one organism at the same site. But all the 30 patients with multiple site involvement showed the same organism at all the sites.

The age of the patients ranged from 14 to 70 years, and there were 91 males. The duration of the disease varied from 3 days to 20 years. Majority of patients (55%) presented during summer months (March-June) or just after monsoon (20%) (September-October).

TABLE 1
Dermatophytes isolated from
100 patients of tinea cruris

Species identified	No. of patients	Percentage
<i>T. rubrum</i>	84	84
<i>T. violaceum</i>	2*	2
<i>T. tonsurans</i>	1	1
<i>T. mentagrophytes</i>	2	2
<i>E. floccosum</i>	11	11
<i>M. gallinae</i>	1†	
<i>Candida parakrusei</i>	1‡	
Total	100 (4)	100%

* Both the patients had mixed infection with *T. rubrum* and *E. floccosum* respectively.

† This was isolated in combination with *E. floccosum*.

‡ This was isolated in combination with *T. rubrum*.

Discussion

Trichophyton has been the commonest isolated genus in all studies^{2,7}. The highest incidence was reported from Pondichery² (95%) and Baroda⁶ (95%). The isolation rate in the present series was 89%. *Trichophyton Rubrum* (84%) has been the most frequent species in the earlier reports^{2,7} as also in the present study. *Epidermophyton* was isolated in 11% patients and this is the highest as compared to previous studies^{2,4,6,7}. *Trichophyton Tonsurans* was isolated from one case; it was earlier reported in one case of tinea cruris by Mehrotra et al⁴.

Incidence of mixed infections in dermatophytes is not very common. Mehrotra et al⁴ found one out of 103 cases of tinea cruris where *Trichophyton Rubrum* and *Trichophyton Violaceum* were isolated. Four such instances

were recorded in the present study. *Microsporum Gallinae* and *Epidermophyton Floccosum* were isolated in one patient and *Candida Parakrusei* and *Trichophyton Rubrum* were isolated in another. Two other cases grew *Trichophyton Violaceum* in combination with *Trichophyton Rubrum* and *Epidermophyton Floccosum* respectively.

Thirty patients had multiple site involvement. Tinea corporis was present in 23 (77%) and tinea pedis in 7 (23%). *Trichophyton Rubrum* was isolated from both the sites in twenty four patients (80%).

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