TINEA CAPITIS IN HYDERABAD
(with an epidemic of T. Capitis in a Home for the disabled)

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In 1969 we dealt with the subject of Dermatomycoses in Hyderabad area in a separate paper. Then we recorded an incidence of 3% of T. Capitis among deramatomycoses-a rather high incidence considering our experience in other parts of Andhra Pradesh. This lead us to a detailed study of the ringworm of scalp in Hyderabad for its clinical and mycological aspects.

Material and Methods:

A total number of 68 clinically suspected cases of T. capitis formed the subject of this study. 45 of them were seen in Skin Out-patient Department of Gandhi Hospital, Secunderabad, and 23 were seen in a Home for the Disabled where it occured in almost an epidemic form. Skin lesion was cleansed with spirit and scrapped with blunt scalpel from the active periphery of the inflammed area and scales, 2-3 m.m. in diameter, collected on a sterile glass slide. Luster less hair and stumps of broken hairs were plucked with fine forceps and collected on slide. Wet mounts were prepared for direct smear examination using a drop of 10% KOH, and a coverslip applied. Wet smear was gently heated and left at room temperature for one hour for clearing before being searched in low power of the microscope for mycelial elements and arthrospores. Suspected specimens were stained with lactophenol cottonblue stain, replacing the alkali from the edge, to differentiate from artefacts. Hair specimens were searched for the presence of ectothrix or endothrix spores.

Skin scrapings and hairs were planted at distances of 1 c.m. on chloramphenicol dextrose agar, using a nickel chrome wire SWG 18. Cultures were incubated at room temperature 25-28°c. for 3-4 weeks and observed everyday for growth.

The texture and colour of the colony observed on its upper and lower surfaces for evidence of diffusible pigment. A needle mount was made on lactophenol cottonblue stain and examined for morphological features. Eg : Macroconidia, microconidia, chlamydospores etc...

Observations:

T. capitis more prevalent in children than in adults and this compares favourably with similar observations made by other workers (Ghosh 1948 Desai et al 1961, Mahajan and Mohapatra 1968). In the present study the most vulnerable age is between 6 to 15 years which accounts for 48 out of 68 cases. This table also shows the male preponderance over the females (3 : 1) and male children again constituted the largest number of cases, 42 out of 52 cases in children under 15 years age.

In our previous paper (1969) we made a remark that the high incidence of T. capitis in Hyderabad might probably be due to predominant muslim community who wear caps. But the present study shows that Hindus predominate over other communities.

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Table 1

Total attendance in Skin O. P. (1970)	18,000
Total Dermatomycoses	1,050
Total Tinea capitis	68
Tinea capitis among dermatomycosis	6.5%

Table 2—Comparison with some other workers

Author	Area	Incidence	%
1. Gupta & Shome 1959	U. P.	20 out of 620	3.2
2. Kandhari & Sethi 1964	Delhi	16 out of 858	1.9
3. Kalra et al 1964	Delhi	14 out of 454	3
4. Vasu 1966	Warangal A.P.	1 out of 203	0.5
5. Mahajan et al Mahapatra 1968	Rural areas around Delhi	15 out of 96	61.46
6. Nagabhushanam et al 1969	Hyderabad	32 out of 1080	3
7. Present Study	do	68 out of 1050	6.5

Table 3—Age and Sex wise incidence

Age groups	M	F	Total	
0—5	2	2	4	
6—10	20	3	23	48
11—15	20	5	25	
16—20	6	3	9	
21 and above	3	4	7	
	51	17	68	

Male: Female 3:1

Age 6 to 15 years: 48 (70.6%).

Table 4 Prevalence of T. Capitis according to Religion

Religion	Number of cases
Hindu	48
Muslim	11
Christian	9
Total	68

Table 5 Clinical Types

Type	No. of cases
Patchy alopecia with scales	35
Blackdot type	23
Kerion	10
Total	68

12 cases of T. capitis were having T. corporis also and the same species of fungus were isolated from the both lesions.

Table: Mycological findings

KOH+ve Culture+ve	KOH+ve Culture—ve	KOH(—)ve Culture+ve	KOH(—)ve Culture+ve	Total
47 (69.1%)	16 (23.5%)	2 (2.9%)	3 (4.4%)	68

Out of 63 KOH+ve cases 47 (74.6%) yielded positive culture. Out of 5 KOH negative specimens in 2 cases the culture was positive.

TABLE 6

Table: Species of dermatophytes isolated in 49 cases :

Species	No. of cases	
*Trichophyton violaceum	23	(3+20)—46.9%
@ ,, Rubrum	14	.. 28.6%
% ,, Mentagrophytes	7	.. 14.3%
* ,, tonsurans	1	..
Microsporum gypseum	2	
,, Canis	1	* Endothrix 24
,, audouni	1	% Ectothrix 21
Total	49	

T. Violaceum was the commonest pathogen recovered and was responsible for 23 out of 49 cultures. Next in order were T. rubrum (14 cases), T. Mentagrophytes for 7 cases etc. as shown in table 6. Considering the total number of cases our observation of T. Violaceum being the principal pathogen of T. capitis is in confirmity with that of other workers (Dey, Maplestone, Desai et al, Mahajan and Mohapatra Kandhari and Sethi etc). But we wish to point out that 20 out of 23 isolates of T. Violaceum were from patients of the Home for the Disabled. If these 20 cultures are excluded and if the cases who attended the hospital only are considered T. rubrum tops the list, followed by T.meutagrophytes. Although T. rubrum is the predominant species responsible for dermatomycoses, it is generally considered to be a rare cause of T.Capitis. In this regard our observation differs from that of the other workers. M.gypseum was recovered in 2 females who happened to be mother and daughter aged 28 years and 10 years respectively.

THERAPY

The cases attending the outpatient department were treated with daily dose of GRISOVIN.F.P. (600 mg) daily for adults and 2 or 3 tablets daily for children for 4 to 6 weeks. Majority of these cases showed a clinical cure. But there was one female child aged 8 years who did not show either clinical or mycological cure even at the end of 3 months of therapy and T.mentagrophytes was consistently isolated every month for 3 months.

In the Home for Disabled 23 children were treated with the Grisovin F.P. The

dose was 4 tablets twice a week for children above 10 years and 3 tablets twice a week for children below this age, for 4 weeks. They were asked to chew the tablets and swallow after meals. 16 cases (69.6%) showed clinical cure by the end of 6 weeks while the remaining 7 still showed some evidence of scaling and activity and the treatment is being continued.

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