

# TREATMENT OF INFLAMMATORY TINEA CAPITIS WITH COMBINATION THERAPY TO AVOID SCARRING ALOPECIA

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## SUMMARY

*Thirty patients (18 boys, 12 girls, age range 3-14 years) were treated with combination therapy of griseofulvin and corticosteroids for tinea capitis. The dosage regimen was 10-12 mg/kg per day of griseofulvin and 1 mg/kg per day of corticosteroids. Griseofulvin was given for 8 weeks and oral corticosteroids given for a minimum period of three weeks in a tapering dose. Patients were followed up at weeks, 2, 4 and 8. As each visit clinical assessment was made and material taken for mycological examination. At the end of week 8, the positive mycology had fallen from 100% to 16%. In 25% patients the inflammation was completely settled down, hair growth had started and mycological examination was negative. In 5 patients, where the mycological examination was positive, were advised griseofulvin for 4 more weeks. Four children developed gastro intestinal adverse effects, which were considered to be minor. The data from this small study need to be confirmed in larger group of patients.*

## INTRODUCTION

Tinea capitis is a dermatophyte infection of the scalp, eyebrows, and eyelashes, caused by species of microsporum and trichophyton. *Trichophyton violaceum* is the major pathogen for tinea capitis in Pakistan.<sup>1,2</sup> Tinea capitis accounts for 47. Percent of all superficial mycoses.<sup>3</sup> It is the most common mycotic infection in children and is rare in adults.<sup>4</sup>

Inflammatory tinea capitis (Kerion) is a deep dermatophytic infection of the scalp, eyebrows, beard, and moustache. Zoophilic are the usual causative organisms of a Kerion. *Trichophyton rubrum* has been reported to cause a Kerion.<sup>5</sup>

The diagnosis is based on characteristic clinical features and is confirmed by examination for the fungus. There is an association between the severity of the alopecia and the age of the patient and

the extent of the primary fungal infection. Low patient age and large primary infection lead to poor prognosis.<sup>6</sup>

Clinicians need to be aware of the varying presentations of inflammatory fungal disease to avoid misdiagnosis as bacterial infection. Griseofulvin has been the mainstay of therapy<sup>7,8</sup> although inflammatory tinea capitis need systemic corticosteroids with griseofulvin to avoid alopecia. Early diagnosis followed by timely and effective is stressed to prevent scarring and permanent hair loss.<sup>9</sup>

## MATERIAL AND METHODS

Thirty children (less than 15 years of age both from rural and urban areas) with inflammatory tinea capitis were treated with combination therapy of griseofulvin and oral corticosteroids. Eighteen of these children were having picture of pustular folliculitis, twelve children presented with subjective symptoms of pruritus, fever and pain. They were also having cervical lymphadenopathy in addition to boggy mass studded with broken hairs and oozing purulent material from follicular orifices. The dosage regimen was 10-12 mg/kg per day of griseofulvin and 1 mg/kg per day of corticosteroids. Twenty three of the children were kept in the hospital for the first week of their treatment and the remaining 7 children were treated as out patients. Patients were followed up to weeks 2, 4 and 8. At each visit, the clinical severity of the Kerion was evaluated by assessing the degree of erythema, oedema, pruritus. Development of new area of hair loss and lymphadenopathy. At each visit material was taken for mycological examination. The mycological sample (skin scrapings and hair) were subjected to KOH wet mounts.

## RESULTS

Thirty patients with mycologically confirmed kerion received combination therapy griseofulvin and oral corticosteroids, griseofulvin 10-12 mg/kg per day and corticosteroids 1 mg/kg per day.

Before treatment the degree of kerion was evaluated by assessing the degree of erythema, oedema, pruritus, hair loss and lymphadenopathy.

At the end of 2 weeks, there was significant reduction in oedema. In 20 patients no new areas affected were noted. Mycological examination was negative on only 5 patients. At the end of 8 weeks there was complete cure (clinical and mycological) in 25 patients, hair had started to grow in only 5 patients. In 5 patients the affected areas were still inflamed and mycological examination was positive. The patients, who failed to respond were advised griseofulvin for 4 more weeks. Four patients developed minor gastrointestinal adverse affects not warranting discontinuation of therapy.

## DISCUSSION

Inflammatory tinea Capitis (kerion) is an inflammatory disorder of the scalp caused by specific species of dermatophytes, often resulting in scarring alopecia.

The disorder has characteristic clinical features. The differential diagnosis mainly includes, folliculitis decalvans, acne keloidalis nuchae, dissecting cellulitis of the scalp and follicular lichen planus. Because of the degree of the inflammation generated, the disorder often leads to scarring alopecia if not timely and properly treated.<sup>11</sup> Multiple studies have been carried with terbinafine and itraconazole with less stress on the resultant alopecia.<sup>1</sup> In this study, a combined therapy with griseofulvin and oral

corticosteroids has been tried to minimize to occurrence of scarring alopecia. Five of the total 30 patients in this study who had little scalp involvement and were treated at a very early stage were found to have hair growth. Tinea capitis is rare in adults.<sup>12</sup> Scalp kerion has reported in adults with hair regrowth following treatment with oral terbinafine.<sup>11</sup> A connection has been found between the degree of severity of the alopecia and the age of the patient and the extent of the primary affection, so that the low patient age and large primary affection result in poor prognosis.<sup>5</sup> Early diagnosis and the timely institution of therapy is recommended to prevent the alopecia.

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