



ROLE OF 30% SALICYLIC ACID IN THE TREATMENT OF DERMATOPHYTOSIS

Brinda K

Sarojini Naidu Medical College, AGRA

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ABSTRACT

Aims and Objectives: To study the role of salicylic acid in the treatment of dermatophytosis

Methods: 25 Patients of age 15 to 45 years with clinically evident tinea infections were selected. The diagnosis was confirmed by KOH mount. 30% salicylic acid was applied weekly over the lesions for 4 weeks and followed up. During this period, both oral and topical anti fungals were given.

Results: There was significant reduction in size and hyper pigmentation of the lesions. There was also reduction in itching sensations.

Conclusion: 30% salicylic acid can be used as an adjuvant in the treatment of dermatophytosis

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INTRODUCTION

Dermatophytosis are superficial fungal infections which affects skin, nail and hair. These are caused by dermatophytes^[1]. Dermatophytes have affinity for keratinocytes hence are grow superficially in the epidermis. These consists of fungi of three genera namely Trichophyton, Epidermophyton and Microsporum. Depending on the anatomical sites, these can be classified as tinea capitis (scalp), tinea faciei (face), tinea barbae (beard area), tinea corporis(body), tinea manuum (hands), tinea pedis(feet) and tinea unguium (nails). Diagnosis is usually made clinically and in doubtful cases, KOH preparations of the scrapings is done and the hyphae is visualised. Treatment involves topical antifungals and if extensive, oral antifungals are added. The resistance to antifungals is on the uprise. The duration of therapy is long and thus becomes expensive for the patients. These factors necessitates the need for adjuvant modalities which can reduce the duration and thereby the cost.

Chemical peeling is the application of a chemical agent of known concentration which causes exfoliation of the skin followed by regeneration of new layers^[2]. Since the dermatophytes resides in the superficial layer of the epidermis, peeling of the layer should remove the fungus also. Salicylic acid is used predominantly for its "keratolytic" effect, i.e. its ability to desquamate stratum corneum. Epidermal proliferation is also decreased.^[3] Therefore, we studied the efficacy of salicylic acid as an adjuvant in dermatophytosis.

MATERIAL AND METHODS

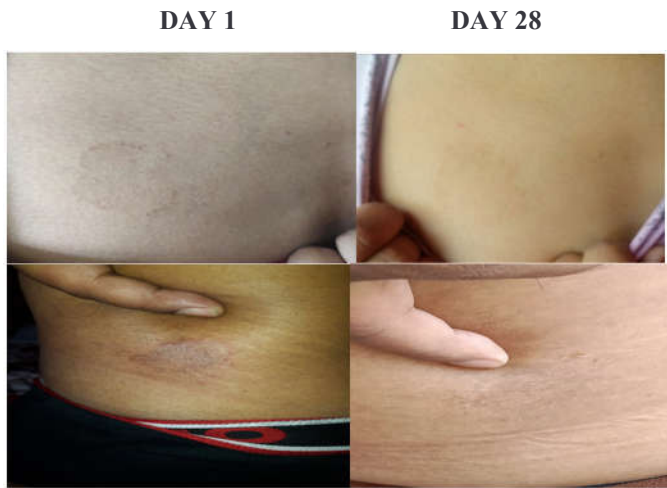
25 patients of age 15 to 45 who were suffering from clinically evident tinea infections were selected. The diagnosis was confirmed by KOH mount. Pregnant and lactating females were excluded. Systemic toxicity due to cutaneous absorption of salicylic acid is a very rare phenomenon, but should be watched for. The clinical presentation of salicylic acid toxicity includes nausea, vomiting, dizziness, psychosis, stupor, and consequently coma and death.^[4] It should not be used in children below 2 years of age and during pregnancy. An informed consent was obtained from the patients.

The lesions were cleaned with normal saline. 30% salicylic acid was applied over the lesions and 1cm beyond the lesional border. The peeling was over every week for 4 weeks. The patients were also prescribed oral and topical antifungals. The patients were followed up for 4 weeks.

RESULTS

Out of the 25 patients, 17 were males and 8 were females aged 15 to 45 years. All the patients were followed up weekly for 4 weeks. There was decrease in size and hyper pigmentation of he lesions clinically. There was significant reduction in itching also which encouraged the patients to adhere the treatment given. The total duration needed for topical and oral antifungals also got reduced.

*Corresponding author: **Brinda K**
Sarojini Naidu Medical College, AGRA



DISCUSSION

The Indian Association of Dermatologists, Venereologists Leprologists manual of dermatophytosis mentions 6% salicylic acid as an adjuvant in the treatment of dermatophytosis, to increase the penetration of topical antifungals.^[5]

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Salicylic acid is a beta hydroxy acid. It has keratolytic and anti-inflammatory properties. Being a keratolytic, it exfoliates the superficial layer of epidermis which results in faster removal of the fungus and also helps in penetration of topical antifungals thereby reducing the duration required for treatment. Hence the cost is reduced and also the compliance of the patients who are not able to adhere to a long treatment schedule. Being an anti-inflammatory, it plays a role in the reduction of itching and also the hyperpigmentation which occurs later on.

CONCLUSION

To reduce the duration of the treatment, 30% salicylic acid can be used as an adjuvant in the treatment of dermatophytosis along with oral and topical antifungals.

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