

Active/ Passive exfoliation as a tool to evaluate anti-psoriatic benefit of Psorolin medicated bathing bar

Aruna V^{*}, Amruthavalli GV, Gayathri R

Dr. JRK's Research and Pharmaceuticals Pvt. Ltd, No. 18 & 19, Perumal Koil street, Kunrathur, Chennai-600069

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ABSTRACT

The present study is about our innovation in interpreting and establishing the inevitability of Psorolin Medicated Bathing Bar for the treatment of Psoriasis because the bathing bar plays a role in exfoliating the cells that are due for exfoliation alone and not those requires forced exfoliation. By corneosurfametry method as well as TEWL from skin post treatment with the product we have established the above benefit. Psorolin Medicated Bathing bar is the first Siddha formulation qualifying the above test and establishing its undeniable role in the treatment of Psoriasis. Psorolin Medicated Bathing bar not just offer cleansing benefit to psoriatic skin but it makes the skin amenable and permeable to absorb other topical medicaments better.

Keywords: Corneosurfametry, Medicated bathing bar, Psoriasis, cleanser for psoriatic skin

I. INTRODUCTION

Psorolin medicated bathing bar is a proprietary Siddha formulation used for treatment of psoriasis in the form of ideal cleanser. The hyper-proliferated deposited stratum corneum cells in the case of Psoriasis is not only a problem by itself but also it significantly affects the absorption of various topical medicaments.¹⁻⁴

In order to increase the drug absorption, pre-treatment with exfoliants are although desired but active exfoliation may trigger the psoriatic problem adversely and thereby the medical benefit of the drug will be nullified by such exfoliating agents.

Achieving passive exfoliation over active exfoliation is extremely difficult because the skin thickening in psoriatic patients is irregular, uneven, discrete and patchy. Therefore the concentration of the exfoliants may need to be increased or decreased according to the skin region. Further even such micro-manipulation into the concentration of exfoliants can be achieved but still

such process will be 'active' and thus the result also can be active exfoliation.

Dr. JRK's Research and Pharmaceuticals is a pioneer organization in developing research based Ayush products for various human ailments. Psorolin Medicated bathing bar is formulated with Aloe vera extract and Wrightia tinctoria extract in a soap base. The total fatty matter and pH are modified along with the incorporation of the above two herbal drugs in order to achieve passive exfoliation where the cells that are totally loosened and those are to be removed are alone removed and not the adjoining cells.

Several psoriasis practitioners all over the world have reported consistently that pre-treatment of skin with Psorolin Medicated bathing bar wash has significantly improved the treatment, due to possibly by aiding greater absorption of other medicaments through skin. Several patients also have stated that Psorolin Medicated bathing bar has greatly improved the psoriatic skin contour and has increased the remission phase.⁵

In the present study we have established the passive exfoliation benefit of Psorolin Medicated bathing bar to show how important is the use of Psorolin Medicated bathing bar for the psoriatic patients to increase the therapeutic benefit of other topical medicaments.

II. MATERIALS AND METHODS

Corneosurfametry was employed for the above purpose, according to the standard procedure.⁶ The stripped skin was viewed under microscope and image was photographed. 1% SLS was used as positive control and 2, 5 & 10% solutions of Psorolin Medicated bathing bar was used for test.

Active and passive exfoliation

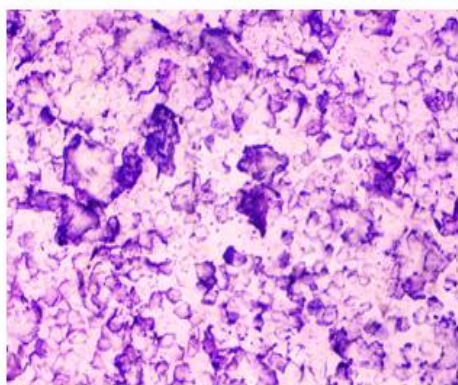
The treated skin region (SLS and or PMBB) was covered by maximal water absorbing paper pad and kept the site undisturbed for an hour.

After an hour the maximal water absorbing paper was collected and tested for the moisture absorption by differential weight method. The result was reconfirmed by another experiment called loss on drying.

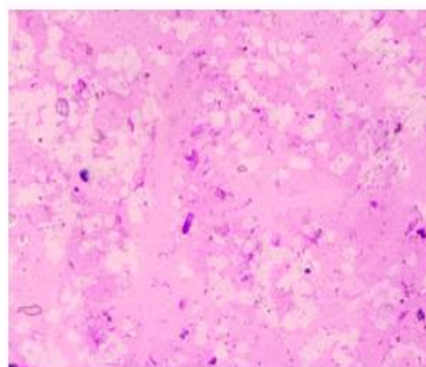
III. RESULTS

1% SLS has caused severe coagulation of Stratum corneum cells resulting in heavy uptake of the stain (10% basis fuchsin toluidine dye) whereas the stain uptake in the case of 2, 5 & 10% of Psorolin Medicated bathing bar was very low. Fig- 1-5

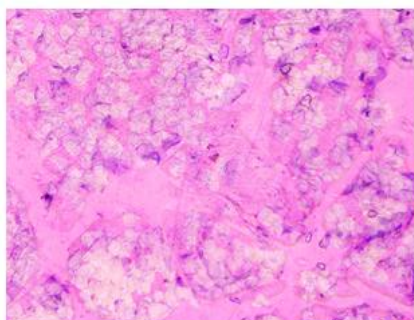
1% SLS-treated cells



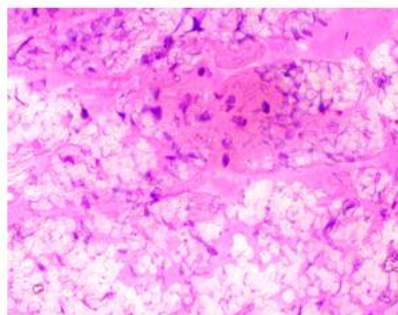
Control (Untreated cells)



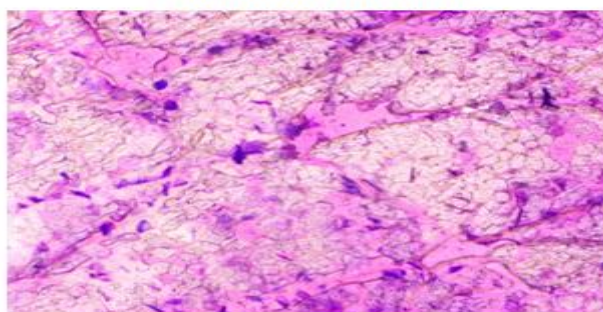
PMBB 2% treated cells



PMBB 5% treated cells



PMBB 10% treated cells



Active and passive exfoliation Psorolin Medicated bathing bar

Maximal water absorbing paper showed high weight gain due to water imbibition in 1% SLS treated site and the percentage increase was 22. The reconcile method through loss on weight

calculation reconfirmed the above result. Whereas 2, 5 and 10% of Psorolin Medicated bathing bar has resulted in only marginal increase in weight gain of the paper due to very low transepidermal water loss.

Treatment	Gain in moisture weight %	Loss on drying %	TEWL %
1 % SLS	15	13	13
2% PMBB	3	2	2
5% PMBB	5	4	4
1% PMBB	8	6	6
Water	1	1	1

IV. DISCUSSION

Psorolin Medicated bathing bar is not only a Siddha formulation for the treatment of Psoriasis fortified with the extract of Aloe vera and *Wrightia tinctoria* but the base is also suitably modified to enhance the dermal absorption of other subsequent medicaments post bath/wash with Psorolin Medicated bathing bar.

In a corneometry study, 1% SLS has caused severe coagulation of stratum corneum cells which has resulted in heavy diffusion of the stain. Whereas in the case of Psorolin Medicated bathing bar 2, 5, or 10% did not cause cellular damage and hence the stain uptake was poor. The above findings we have confirmed through the rate of TEWL experiment.

The 1% SLS treated skin site showed high TEWL whereas Psorolin Medicated bathing bar treated sites did not show significant TEWL. This clearly shows that Psorolin Medicated bathing bar is only causing passive exfoliation where the cells that are due for exfoliation are only removed and not the adjacent ones by mechanical or chemical or physical means.

The drug composition in the Psorolin Medicated bathing bar may be protecting the cells from active exfoliation and thereby cell maturation and desired level of drug absorption both are maintained.

Although from theoretical perspective the active exfoliation may enhance greater dermal absorption but such exfoliation does cause irritant reaction resulting in hyperproliferation which is highly undesired in the case of Psoriasis. Exfoliation and drug absorption both need to be balanced together and simultaneous and only then the micro-ecosystem of the skin of Psoriasis is not altered adversely in the name of treatment.

Our study has clearly shown that Psorolin Medicated bathing bar is essential, inevitable and necessary for the treatment of Psoriasis because skin pre-treatment through a cleanser is necessary to increase the drug absorption, Psorolin Medicated bathing bar is extremely safe, loaded with the goodness of aloe vera and *Wrightia tinctoria* and also cause only passive exfoliation

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