



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

BIOPHYSICAL PROFILE OF SKIN IN INDIAN PATIENTS WITH TOPICAL STEROID ABUSE.

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Introduction: Topical corticosteroid dependent face syndrome (TCDF) is name given to collective signs and symptoms resulting from prolonged unsupervised injudicious use of topical steroids on face as well as its sudden withdrawl. With multiple steroid formulations available over the counter in India, it has become a dermatologist's nightmare.

Aim: To evaluate whether TCDF patients have an altered biophysical profile.

Material and methods: After informed consent, 16 patients with history of super to mid potent topical steroid abuse on face for preceding 6 weeks were enrolled in study. Hydration, skin pH and transepidermal water loss (TEWL) was assessed on both cheeks, forehead and chin using Corneometer 825, pHmeter and Tewameter TM300 respectively of Courage and Khazaka, Germany and mean was calculated of the 4 sites for above parameters. The same was done for 16 age and sex matched controls with no history of topical application in last 6 weeks and the results were compared. Statistical analysis was done using Medcalc 16.4 software.

Results: Nominal data was presented as proportion and compared using Fisher's exact test. When the mean was compared unpaired t-test was used. The skin pH was significantly higher in TCDF patients in both cases. Fisher's exact test showed a p value of 0.003 while unpaired t test of the mean had p value<0.001). Abnormal hydration status was more in case group as compared to control group. However the difference was not statistically significant (p=0.054). When mean hydration status was compared between cases and controls, case group showed significantly lower hydration as compared to controls (p=0.044). There was no significant difference in TEWL between the two groups.

Conclusion: Topical steroid abuse on face can lead to alteration of skin barrier function with lower hydration and elevation of skin pH. There is no effect on TEWL in these patients.

