Is Topical Treatment Effective for Psoriasis in Patients Who Failed Topical Treatment?

Nwanneka Okwundu, DO1, Leah Cardwell, MD1, Abigail Cine, MD, PhD1, Irma Richardson, MHA1, and Steven R. Feldman, MD, PhD2,3
1Center for Dermatology Research, Department of Dermatology, Wake Forest School of Medicine, Winston-Salem, North Carolina

Abstract

Background: Psoriasis patients are often resistant to topical treatment. Objectives: To determine if resistance to topical treatments can be overcome under conditions promoting adherence. Methods: Twelve psoriasis patients treated with topical 0.025% desoximetasone spray were randomized to either twice daily phone call reminders or no phone call, and were treated for 2 weeks. Pruritus Visual Analog Scale (VAS), Psoriasis Area and Severity Index (PASI), Total Lesion Severity Score (TLSS), and, Investigator Global Assessment (IGA) assessed disease severity. Results: Most subjects improved in most scoring parameters. 100%, 91.7%, 83.3%, and 58.3% had improvements in itching, PASI, TLSS, and IGA, respectively. Limitations: While our sample size was small and treatment duration short, the effect size of topical treatment was large. Conclusion: Apparent resistance to topical treatments is often due to poor adherence.

Introduction

High-potency topical corticosteroids are the most common treatment for mild-to-moderate chronic plaque psoriasis and can be highly effective.1-3 However, many patients report that topical corticosteroid is ineffective or that it only worked temporarily, losing effectiveness over time.4,5 The mechanism underlying the lack or loss of activity is not well characterized but may be due to poor adherence to treatment. Adherence to topical treatment is poor in the short run and miserable in the long run.6,7

Supportive of the notion that poor response to topical treatment is due at least in part to poor adherence, patients with either atopic dermatitis or psoriasis “resistant” to topical corticosteroid rapidly improved when given a highly effective topical corticosteroid under conditions that were designed to promote adherence. Focusing on such group can be misleading as outliers with strong improvement could skew the results; group level data are also not informative about what percentage of patients with “resistance” to topical treatment improve with topical treatment. In this study, we evaluate changes at an individual level to determine the frequency with which individual patients with plaque psoriasis supposedly “resistant” to topical treatment will respond to topical corticosteroid treatment.

Methods

This open label, randomized, single centered clinical study recruited twelve subjects with plaque psoriasis who previously failed topical corticosteroid therapy (Table I). The study was approved by the local institutional review board. All study subjects were treated with desoximetasone spray 0.025% (Topical, Tar Pharmanceuticals) for 14 days. At the baseline visit, subjects were randomized either to a twice daily phone call reminder as a control group or to no phone call group. Patients’ visits occurred frequently (at baseline, Day 3, Day 7, and Day 14) in order to further assure good adherence to the treatment regimen. During visits, disease severity was scored with Pruritus Visual Analog Scale (VAS), Psoriasis Area and Severity Index (PASI), Total Lesion Severity Score (TLSS), and, Investigator Global Assessment (IGA). Descriptive statistics were used to report the outcomes for each subject.

Results

Of the twelve subjects with treatment-resistant plaque psoriasis, six subjects were randomized to the intervention group and six subjects to the control group. 91.7% of the subjects in the study were Caucasian, 58.3% of the subjects were female and 41.7% were male. The average age of the subjects was 60.1 years. All the subjects completed the study; 10 of 12 subjects (83.3%) had tried and failed topical clobetasol treatment.

At the end of the study, most subjects improved in all the measurement parameters. The subjects that received phone calls improved more than the subjects that did not receive phone call. All twelve subjects (100%) had an improvement in their itching; 10 of 12 (83.3%) had improved PASI, 9 of 12 (75%) improved TLSS, and 7 of 12 (58%) improved IGA (Table II and figure II).

The percent reduction in itching ranged from 67-100% and 50-86% and 50-86% with and without the phone call reminders, respectively. PASI improvement ranged from 18-63% and 0-55% with and without the phone calls, respectively. TLSS and IGA improvements were of lower magnitude but showed a similar pattern with numerically greater improvements in the phone call reminder group compared to the group that was not called (Table II). No subject showed a worse score for itching, PASI, TLSS, or IGA.

Conclusion

Some psoriasis patients exhibit apparent decreased efficacy of topical corticosteroids over time, but this “lack of response” phenomenon is more likely due to poor adherence than to loss of corticosteroid responsiveness. More studies are needed to confirm these findings. Other patients who have “failed” topical corticosteroids improved rapidly with topical corticosteroids under conditions designed to promote good adherence. The majority of subjects improved in all parameters used for scoring, with 100% of patients reporting improvement in pruritus. Intervention to improve adherence may lead to better health outcomes. When psoriasis appears resistant to topical corticosteroids, addressing adherence issues may be critical.

References

2. Topical monotherapy with clobetasol propionate spray 0.05% in the CIBIX trial. CIBIX. 2007;3(5):Suppl 13-71.