

A Clinical Study of Topical Corticosteroids Misuse

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Abstract

Background: The topical corticosteroids are one of the most commonly prescribed drugs in an out-patient dermatology clinic. Moreover, they are easily available at pharmacist without even proper prescription. **Objective:** To assess the misuse and adverse effects of topical corticosteroids among the patients visiting the dermatology department of hospital. **Methods:** All the patients visiting the dermatology department of the hospital with one of the defined adverse effect of topical corticosteroids use as chief complaint during the study period of one year were included in the study. Demographic details and clinical history was taken. Detailed skin examination was done. **Results:** 8.4% of the new patients attending the dermatology department presented with adverse effect of topical corticosteroids use. 70.02 % of these patients were females. Most common reason for use of topical corticosteroids was for fairness of skin followed by acne treatment. Acne and hypertrichosis were the most common adverse events reported. **Conclusions:** There is a need to convey the importance of judicious and ethical use of topical corticosteroids among the practitioners as well as patients. **Keywords:** Acne, topical corticosteroids, fairness cream.

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INTRODUCTION

Topical corticosteroids have contributed dramatically to the dermatologist's ability in the effective treatment of diverse and difficult dermatological conditions.¹ They have become the most important component of treatment of various inflammation related and non-infectious skin disorders. They have anti-inflammatory, immunosuppressant action as well as properties of vasoconstriction and anti-proliferation^{2,3} However, it has been found that topical corticosteroids are being abused by the doctors and the patients. They are being used not only for their established evidence based indications but also for entities like urticaria and even for an undiagnosed skin rash by the dermatologists and the general practitioners.⁴ This is due to the fast relief of symptoms of several skin diseases by the use of topical

corticosteroids.⁵ Moreover, they are easily available at pharmacist without even proper prescription and pharmacists often double up as doctors and dispense topical corticosteroids medication which has further aggravated the problem.¹ The present study was done to assess the misuse and adverse effects of topical corticosteroids among the patients visiting the dermatology department of hospital.

METHODS

All the patients visiting the dermatology department of the hospital with one of the defined adverse effect of topical corticosteroids use as chief complaint during the study period of one year were included in the study. Chief complaints included were acne, hypertrichosis over the face, telangiectasia, stretch marks, hyper - pigmentation or hypo- pigmentation, perioral dermatitis and pyoderma. Demographic details and clinical history was taken. Detailed skin examination was done.

RESULTS

There were a total of 4368 new patients who visited the dermatology department of the hospital. Out of these, 367 (8.4%) patients presented with one of the defined adverse effect of topical corticosteroids use as chief complaint during the study period of one year. There were a higher proportion of females as out of the 367 patients, a total of 257 (70.02%) patients were females. Regarding the age wise distribution, 148 (40.3%) patients were in the age

group of 21-30 years, 114 (31.1%) patients were of 11-20 years, 57 (15.5%) patients were of 31-40 years and 48 (13.1%) patients were above 40 years. It was found that 212 (57.8%) patients were unmarried whereas 155 (42.2%) patients were married. There was a very low level of awareness regarding adverse effects with only 31 (8.4%) patients being aware about the adverse effects of topical corticosteroids use.

Table 1: Drugs Used, Source of Drug, Reason for Usage and Dermatological Adverse Effects Seen

Parameter	Number of patients	Percentage
Drug used:		
Clobetasol propionate 0.05%	55	15
Betamethasone valerate 0.1%	148	40.3
Flucinolone acetonide 0.025%	37	10.1
Fluticasone propionate 0.05%	24	6.5
Mixed (> 1)	103	28.1
Source of the drug:		
Self, friends or relatives	112	30.5
Pharmacist	106	28.9
Paramedical personnel	63	17.2
General practitioners	44	12
Dermatologist	42	11.4
Reason for usage*:		
Fairness of the skin	172	46.9
Acne	146	39.8
Melasma and suntan	109	29.7
Mild facial dryness	34	9.3
Pediculosis pubis	30	8.2
Scabies	23	6.3
Dermatological Adverse Effects:^a		
Acne	168	45.8
Facial hypertrichosis	87	23.7
Telangiectasia	81	22.1
Cutaneous atrophy	46	12.4
Hyper or hypo pigmentation	44	12

* indicates that some patients mentioned more than one reason for drug usage

^a indicates that some patients had more than one adverse effect

DISCUSSION

It was found that misuse of Topical steroids was common considering the proportion of patients reporting with adverse effects. Moreover, this proportion maybe higher as many patients may not have presented at the time of the study. Most common reason for use of topical corticosteroids was for fairness of skin. This also explains the higher proportion of females using them. Topical corticosteroids have come up as a major agent for skin lightening over the recent years due to the potent

bleaching action and also due to the anti-inflammatory property^{6, 7}. Studies by Dey⁸ and Al-Dhalimi *et al.*⁹ have also reported that most common reason for use of topical corticosteroids was for fairness of skin and females were more commonly using these drugs. It was found that most of the drugs used were in the potent or very potent category which has also been highlighted by Dey⁸ and Al-Dhalimi *et al.*⁹. Pharmacists, patients, their friends and relatives as well as paramedical personnel were responsible for usage of the drugs in a major proportion of cases.

LIMITATIONS

Limitations of our study include the diagnosis being mainly clinical which was not investigated further and also study design could not give population based prevalence as it was a hospital based study. This makes it difficult to generalise the results to the population.

CONCLUSION

We conclude that there is a need to convey the importance of judicious and ethical use of topical corticosteroids among the practitioners as well as patients.

REFERENCES

1. Rathi SK, D'Souza P. Rational and ethical use of topical corticosteroids based on safety and efficacy. *Indian J Dermatol* 2012;57:251-59.
2. Hughes J, Rustin M. Corticosteroids. *Clin Dermatol* 1997; 15:715-21
3. Valencia IC, Kerdel FA. Topical glucocorticoids. In: Fitzpatrick T, editor. *Dermatology in General Medicine*. 5 th ed. New York: McGraw-Hill; 1999. p. 2713-7
4. Ference JD, Last AR. Choosing Topical Corticosteroids. *Am Fam Physician* 2009;79:135-40.
5. Rathi S. Abuse of topical steroid as cosmetic cream: A social background of steroid dermatitis. *Indian J Dermatol* 2006;51:154-55.
6. Mahe A *et al.*. Skin diseases associated with the cosmetic use of bleaching products in women from Dakar, Senegal. *British journal of dermatology*, 2003, 148(3):493-500.
7. Arnold J, Anthonioz P, Marchand JP. Depigmenting action of corticosteroids. *Dermatologica*, 1975, 151(5):274-80.
8. Dey VK. Misuse of topical corticosteroids: A clinical study of adverse effects. *Indian Dermatol Online J* 2014;5:436-40
9. M.A. Al-Dhalimi and N. Aljawahiry. Misuse of topical corticosteroids: A clinical study in an Iraqi hospital. *Eastern Mediterranean Health Journal* 2006; 12 (6), page 847-52

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