



An Epidemiological Study on Topical Steroid Misuse in Various Dermatoses

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Abstract

Background: Topical corticosteroids, being one of the most frequently prescribed classes of drugs in clinical practice today, are very often subjected to misuse. A vast majority of the patients are unaware of the untoward effects that may arise even with the right administration of these drugs,

Methods: A cross sectional epidemiological study will be conducted at the Department of Dermatology, Venereology and Leprosy, Sardar Patel Medical College, P.B.M. and associated group of hospitals, Bikaner to find out the incidence of topical steroid misuse in different dermatoses.

Results: A total of 109711 new patients were recorded at dermatology OPD out of which 29220 (26.63%) patients had presented with TCs misuse and adverse effects. Maximum number of outdoor seen during month of July, August and September and minimum during December.

Conclusion: The misuse of topical corticosteroids has a huge impact on dermatological practice as it is responsible for a significant proportion of visits to dermatology Hospital.

Keywords: Misuse, topical corticosteroids, dermatology

Introduction

The advent of dermato-pharmacology was started by Sulzberger and Witten in 1952 when topical corticosteroid (TCs) were first entered for commercial use.¹ Due to dramatic results, these drugs got rapid popularity among doctors and patients also.

The role of topical corticosteroids in the treatment of various conditions can be attributed to the inhibition of endogenous inflammatory mediators such as kinin, histamine, liposomal enzymes and prostaglandins, resulting in immunosuppression and an overall anti-inflammatory activity. In addition to the anti-inflammatory action, topical corticosteroids tend to have anti-mitotic effect on tissues including the human epidermis².

Recent developments led to these preparations being used in combination with antibacterial and antifungal agents, which proves to be more effective. The irrational prescribing patterns, over the counter availability and the fixed dose combination system of the drug stand out to be the major causes of the misuse³.

Materials and Method

A cross sectional epidemiological study will be conducted at the Department of Dermatology, Venereology and Leprosy, Sardar Patel Medical College, P.B.M. and associated group of hospitals, Bikaner to find out the incidence of topical steroid misuse in different dermatoses like fungal infections, acne, melasma, photomelanosis and other dermatoses and to assessment of misuse of topical steroids will be done on the basis of clinical features like striae, acne, telangiectasia, hypopigmentation, steroid dependency, photosensitivity, atrophy, folliculitis, erythema, perioral dermatitis, rosacea, hirsutism and flare up of existing disease.

All general information including clinical diagnosis of new patients will recorded in outdoor register and we will assess in which type of dermatoses, steroid misuse side effects were observed. The study would be conducted for period of one year.

Inclusion Criteria

- All new clinically diagnosed patients attending to outdoor.
- All suspected new clinically diagnosed cases of topical steroid misuse in different dermatoses.

Exclusion Criteria

- Patient not giving proper information.
- Old cases, already registered with our outdoor register.
- Systemic disease causing cutaneous side effects similar to topical steroids e.g. endocrinopathies.
- Systemic steroids causing cutaneous side effects
- Patients with atypical clinical presentation.

Observation

Table -1: Percentage of the patients presenting with TCs misuse in various Dermatoses

Month	Total O.P.D	Total New Patient (N)	Old Patient	No. Of Total New Patients With TCS Misuse	Percentage (%)
August	18328	10791	7639	2939	27.24
September	17986	10894	7168	3167	29.07
October	15246	9481	5760	2821	29.75
November	14207	8642	5502	2432	28.14
December	12617	7562	4762	2183	28.87
January	15382	9346	5741	2645	28.30
February	13943	8558	5431	2343	27.38
March	13983	8590	5371	2238	26.05
April	13313	8447	5129	2171	25.70
May	14638	8719	5764	1984	22.75
June	13905	8598	5319	2134	24.82
July	17249	10083	7240	2163	21.45
Total	180797	109711	70826	29220	26.63

During the study period of one year from August 2017 to July 2018, A total of 109711 new patients were recorded at dermatology OPD out of which 29220 (26.63%) patients had presented with TCs misuse and adverse effects. Maximum number of outdoor seen during month of July, August and September and minimum during December.

A total of 109711 new patients were observed at dermatology OPD during the study period of one year, out of which Dermatophytosis patients presented with TCs misuse were 15165 (13.82%).

Discussion

A cross sectional epidemiological study on TCs misuse in various dermatoses was conducted in tertiary care hospital from August 2017 to July 2018.

During the study period of one year, A total number of 1,09,711 new patients attended the out patients department of our specialty. In which 29,220 (26.63%) patients had history of with misuse and adverse effects of TCs which was compared to the other studies carried out by Meena et al⁴ (0.43%), Dey et al⁵ (5.63%), AJ-Dhalimi et al⁶ (7.9%), Rathod et al⁷ (8.4%) and Subodh Kumar et al⁸ (28%)

During the study period of one year from August 2017 to study 2018, A total of 29220 patients who had presented history of TCs misuse at dermatology OPD, out of which patients who had TCs misuse were 15,165 (51.90%) which was quite high as compared with other studies

carried out by AJ-Dhalimi et al⁶ (2.8%), TS Nagesh et al⁹ (3.4%), Dey et al⁵ (14.17%) except Meena et al⁴ (52.43%).

But almost similar figures can be seen in study conducted by Meena et al⁴(52.43%) in Udaipur (Rajasthan), Perhaps this finding may be attributed to lower socio-economic status of patients in Rajasthan or it could be due to beliefs & practices of the patients in Rajasthan who preferred to of for self medication instead of consulting a dermatologist.

Conclusion

The misuse of topical corticosteroids has a huge impact on dermatological practice as it is responsible for a significant proportion of visits to dermatology Hospital.

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