Topical Steroid Abuse: Clinicoepidemiological Profile

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ABSTRACT

Introduction: Topical corticosteroids are today among the most commonly prescribed medications in dermatology clinics. Steroid abuse is a common problem due to easy availability of steroid creams as over-the-counter drugs. This study was conducted to see the magnitude of this problem of steroid abuse and the clinical profile of these patients in our population.

Material and Methods: All patients with a history of topical use of steroids on face for a period greater than one month were enrolled in this study after taking an informed consent. A detailed history about the type of steroid used, duration of application, source of prescription of the drug (doctor/chemist/self/acquaintances) and indications were recorded. A detailed clinical examination of these patients was carried out and results were recorded.

Results: This study was conducted over a period of 6 months and 180 patients who fulfilled the inclusion criteria were enrolled in this study. There were 33 males and 147 female patients. The range of age of these patients varied from 5 years to 60 years. Melasma/hyperpigmentation was the most common indication for steroid use. Chemists were the most common source of prescribing steroids. Atrophic changes of the skin were the most common adverse effects seen.

Conclusion: Topical steroids are very commonly abused drugs. This problem is more common in youngsters, especially females. Over the counter availability of these drugs in our part of world is a major cause of their abuse.

Keywords: Steroid Abuse, Clinicoepidemiological

INTRODUCTION

Steroids have been in use as topical agents for a long time now.[1] The use of topical steroids has been on a rise since their inception.[2] Topical corticosteroids are today among the most commonly prescribed medications in dermatology clinics.[3] Steroid abuse is a common problem due to easy availability of steroid creams as over-the-counter drugs.[3]

Steroids exert various effects on the skin- anti-inflammatory, anti-pruritic, melanopenic, atrophogenic, and immunosuppressive. All these effects can be a cause of adverse effects of steroids from their prolonged or unwarranted use.[4]

This study was conducted to see the magnitude of this problem of steroid abuse and the clinical profile of these patients.

MATERIAL AND METHODS

This study was conducted in the outpatient department of dermatology of a tertiary care hospital in north India over a period of 6 months from January 2016 to June 2016, after approval from the instutional ethics committee. All patients with a history of topical use of steroids on face for a period greater than one month were enrolled in this study after taking an informed consent. A detailed history about the type of steroid used, duration of application, source of prescription of the drug (doctor/chemist/self/acquaintances) and indications were recorded. A detailed clinical examination of these patients was carried out and results were recorded, especially with regard to adverse effect from steroid use. Patients with rosacea without steroid usage, patients on systemic corticosteroid therapy, patients with comorbidities that resemble TC side-effects viz polycystic ovaries, Cushing's syndrome, thyroid disorders were excluded from the study. Laboratory investigations were done on a case to case basis as per the individual requirement.

RESULTS

This study was conducted over a period of 6 months and 180 patients who fulfilled the inclusion criteria were enrolled in this study. There were 33 males and 147 female patients. The range of age of these patients varied from 5 years to 60 years, with a median age of 22 years (Table 1). Most of the patients (62.2%) were from rural background. The duration of steroid use varied from 2 month to 10 years. The various clinicoepidemiologic parameters are shown in table 1 to 4.

DISCUSSION

This study was conducted over a period of 1 year. 180 patients fulfilled the inclusion criteria and were included in the study. The misuse/overuse of topical steroids is very rampant[3] and this may be a fraction of the actual number of cases of steroid misuse. Females formed the major chunk (81.6%) of the study group. This is not an unusual finding, because females are more concerned about their cosmetic appearance and are more likely to apply some medication to their face even for a very minor problem, which might be overlooked by their male counterparts.

Age distribution (years)	Number of patients
1-10	02
11–20	31
21–30	103
31–40	29
41–50	11
51–60	04

Table-1: Age distribution of patients using topical corticosteroids on face

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Indication	Number of patients	Source of drug prescription/advice	Number of patients
Melasma/hyperpigmentation	71	Chemist/ Drug stores	113
Acne	39	Acquintances/Relatives/Self	43
Moisturising cream	25	Paramedics	16
Skin softening daily use cream	21	General practitioners (Non-dermatologists)	05
Photodermatitis	21	Dermatologists	03
Tinea	9		
Irritant Dermatitis	6		
Hypopigmentation	6		
Vitiligo	6		

Table-2: Indications of topical steroid use and source of prescription

Potency of steroid preparation	Name of drug	Number of Patients
Very potent steroids	Clobetasol propionate with salicylic acid	09
	Clobetasol propionate 0.05%	27
Potent steroids	Betamethasone valerate 0.1%	81
	Mometasone furoate 0.1%	09
	Fluticasone propionate 0.05%	15
Moderately potent steroids	Clobetasone	06
Mildly potent steroids	Hydrocortisone	03
Mixed	Combination of steroid with hydroquinone, antibacterial and antifungal	30

Table-3: Potencies of various topical steroids used by patients.

Adverse Effect		Number of patients
Atrophic changes	Steroid atrophy	45
	Telangiectasia	59
	Easy bruising	04
Infections	Tinea incognito	05
Miscellaneous	Steroid acne	30
	Perioral dermatitis	09
	Hirsutism/hypertrichosis	27
	Hyperpigmentation	09
	Hypopigmentation	05
	Photosensitization	04
	Rebound flare/Erythema	60
	Xerosis	30
	Steroid Rosacea	09

Table-4: Adverse effects of steroids

The most common use of topical steroids as skin lightening cream by patients further adds weight to the argument that females were more likely to use these preparations. A similar trend was seen in earlier studies.[3,5,6]

Most of the patients in our study (62.2%) were from rural background. Our results differ from those of other researchers like Saraswat et al[7], who found this problem more prevalent in urban areas. The reasons for higher prevalence in rural areas could be less access to qualified dermatologists in these areas and easy dispensing of these drugs by chemists in rural areas without asking for any prescriptions.

Most of the patients who had adverse effects from steroid abuse were in the age group of 21-30 years. This is the stage in lives of youngsters when they are most conscious about their looks and might use some medications just based on advice of friends or relatives to take care of some major or minor skin problems. Saraswati et al[7] also point out in their study that young females are the usual patients who abuse topical steroids, taking them as fairness creams or beauty cream, based on advice of their friends or relatives.

Infact, we found in our study that the most common indication for using topical steroids was as a demelanizing agent or a fairness cream. Various studies[5] have shown that common people perceive topical steroids as fairness creams and this problem is more common in countries where colored people live, as in Asia. This problem is aggravated by the easy availability of steroid preparation at the chemist shops, where these are dispensed without a prescription in the third world countries.[8,9]

An alarming trend seen by us was that the maximum number of our patients (58.3%) were using potent steroids and a good number of patients (20%) were using very potent steroids. This indicates that the steroid use was not based on prescription from a qualified dermatologists. This also makes up for increased chances of adverse effects from topical steroid use.earlier studies by Yasmeen et al[2] and Dey et al[3] also showed that potent and very potent steroids were the ones most commonly used by patients. The patients don't have idea about the potency and resulting adverse effect profile of these drugs.

Chemists/drug stores were the most common source (62.7%) of steroid prescription/ advice in our cases. Though there are legislations in place to prevent sale of drugs without prescription of a registered medical practitioner, the ground level implementation of these legislations remains elusive.

Various types of adverse effects were noted in these patients. Rebound flare/erythema, atrophic changes like telengiectasias, steroid atrophy and easy bruising were the most common adverse effects seen. Ammar F. Hameed[10] and Yasmeen et al[2] have recorded similar observations. Others included hirsutism/ hypertrichosis, steroid acne, xerosis, hypo or hyperpigmentation. There is very little awareness among the masses about adverse effects of steroids. The steroids have initial good response on skin due to their anti-inflammatory/ bleaching actions and it leads to an ignorant layman becoming accustomed to using steroids regularly. Subsequently the adverse effects of steroids become apparent.

CONCLUSION

Topical steroids are very commonly abused drugs. This problem is more common in youngsters, especially females. Over the counter availability of these drugs in our part of world is a major cause of their abuse. To tackle this problem, a multi-pronged approach is needed in form of education of masses, effective implementation of legislation to stop dispensing of drugs without proper prescription and sensitization of pharmacists/ chemists towards this issue.

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