

MIS USE OF TOPICAL STEROIDS ON FACE AND BODY – CLINICAL STUDY OF 125 PATIENTS

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Abstract— Misuse of topical steroid is a wide spread phenomenon among young people in Pakistan, especially in women. The misuse occurs at various levels such as manufacturing, marketing, prescriptions, sales and use by patients and laymen. To study various adverse effects of topical corticosteroids on face and body, a questionnaire based analysis was done among patients attending the dermatological outpatient department at JINNAH POST GRADUATE MEDICAL CENTRE KARACHI. Data regarding source, types, duration along with demographic profile and clinical presentations were recorded.

125 patients with history of topical steroid use on face selected from minimum 3 months to maximum 2 years duration. They belong to age from 16 to 58 years. They were 95 females and 30 males with mean age 25.67 ± 15.12 years. Duration of topical steroid use ranged from 3 to forty-two months with mean of 6.70 ± 7.45 months. The main reason of using it to lighten the skin tone, treat melasma, suntan, skin freshness. Side effects noted were steroid induced acne, hirsutism, telangiectasia, steroid induced rosacea, erythematous, perioral dermatitis, decrease eye vision, headache, cataract, hyperpigmentation, itching, perioral dermatitis, tinea incognito are the most common side effect noted.

Topical steroid is a common phenomenon especially in females leading to many side effects. They shouldn't be used on the face unless it is under strict dermatological supervision.

Index Terms— *clinical investigation of 125 cases, clinical observation of 125 victims, clinical research of 125 sufferers, Exploit of steroids on features, improper use of steroids on profile, Misuse of local application of steroids, unethical local application of steroids.*

1 INTRODUCTION

The history of dermatology is the history of mankind. With the skin being the largest and most accessible organ to treat, failure to care for the skin increases the risk of skin infections leading to morbidity and disability [1]. The introduction of topical corticosteroids greatly expanded the practitioner's dermatologic armamentarium and at the same time augmented the list of local and systemic iatrogenic diseases with which he must deal [2]. They are available in different forms Solutions, Lotions, Creams, Ointments, gels and mousses [3].

BACKGROUND

Topical steroid therapy comprises the mainstay treatment of many dermatologic conditions [4]. They are used and effective anti-inflammatory preparations used to control eczema, dermatitis, rash, atopic dermatitis, nummular eczema, xerotic eczema, lichen sclerosis atrophicus of the vulva, scabies (after scabicide) and severe dermatitis, psoriasis, lichen planus, discoid lupus, chapped feet, lichen simplex chronicus, severe poison ivy exposure, alopecia areata, severe atopic dermatitis in adults and many other skin conditions [5]. The end-users of Topical Corticosteroids are cursed patients. They tend to overuse TCs beyond the time limit set by clinicians by repeating prescriptions. Of more concern is the mass use of TCs as fairness creams [6]. Mostly it is noted in females. Vast sections of the Pakistani society have become willing or unknowing victims to the craze of beautification leading to many skin problems the most common include atrophy, striae,

rosacea, perioral dermatitis, acne and purpura [7]. Hypertrichosis, pigment alteration, delayed wound healing and exacerbation of skin infections are less frequent [8].

Irrational use of Topical Corticosteroid (TC) is quite common in PAKISTAN due to unrestricted availability and use of TC not only by general public but also by physicians and chemists due to quick relief of symptoms in different dermatological conditions [9]. Misuse of steroid is a wide spread phenomenon among young people in Pakistan, especially in women. However the usefulness of these has become a double edged sword with constantly rising instances of abuse and misuse leading to serious local, systemic and psychological side effects [10]. These side effects occur more with TC of higher potency and on particular areas of the body like face and genitalia [11]. The misuses occur at various levels such as in manufacture marketing, prescriptions, sales and use by patients and laymen [12]. The patients may be suffering from a variety of disorders by their misuse which is prescribed by friends, relatives, non dermatologist and neighbors [13]. The practice is associated with significant adverse effects and poor awareness of these effects among the general public.

AIMS AND OBJECTIVES

The aims of this study is to find out the demographics, magnitude and clinical features of TC misuse on the face in the dermatology outpatient department (OPD) as well as to raise awareness about this problem and to analyze its causes, the

reasons behind it and the most common adverse effects resulting from it.

MATERIALS AND METHODS

A questionnaire based analysis was done among patients attending the dermatological outpatient department at JINNAH POST GRADUATE MEDICAL CENTRE KARACHI. Data was collected regarding sources, types, duration along with demographic profile and clinical presentations were recorded. It covered their privy details such as age, gender, employment, marital status, education level, duration and frequency of askance of topical corticosteroid, the intellect for practicing it, familiarity of proper dosing and adverse effects. Patients were also asked about who had prescribed/recommended the remedy. A full skin examination was performed to detect any condition related to abuse of topical corticosteroids. Most of the diagnoses were exclusively clinical, and were based on the typical, classical features.

In the present study patients were advised to use these medicines by pharmacists, friends, and relatives. General practitioners and pharmacists are often the first point of contact for most of the patients. The strength of steroid determined by the amount of corticosteroid they contain. Figure 01 shows 56 number of patients were registered using potent steroid from upper to mid strength (betamethasone dipropionate), 39 number of patients were registered using moderately potent steroid having a mild strength (clobetasone butyrate, 16 are those who used super potent form of steroid (clobetasol propionate), 14 were using least potent form (hydrocortisone).

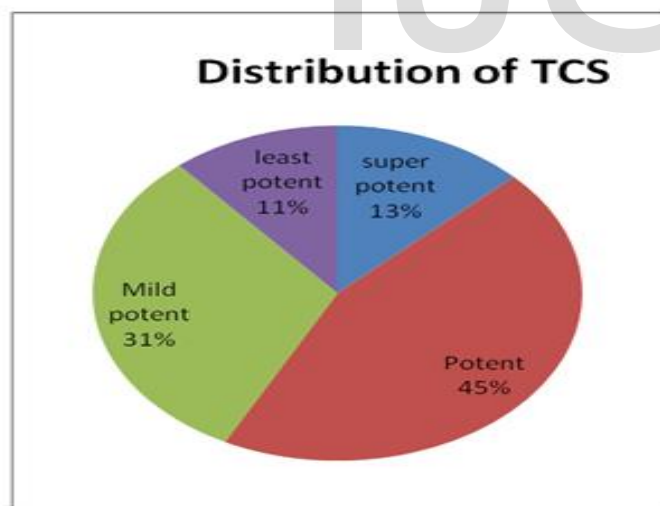
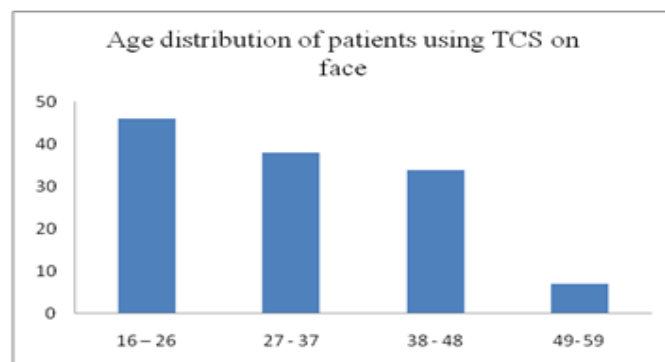


Figure: 01 Distribution of topical corticosteroids



Graph: 01 Age Distribution of patients using TCs on face

125 patients with history of topical steroid on face and body from 16 to 58 years were selected. Out of these 125 patients, 95 were females and 30 were males with mean age 25.67 ± 15.12 years. 67 were house wives and rests of the females are college and university students among them 4 were medical students. Majority of the patients belong to the young age group which included 46 numbers of patients from 16 -26 years of age least numbers of patients seen from the age group 49 to 59 years. Duration of topical steroid use ranged from 3 to forty-Two months with mean of 6.70 ± 7.45 months.

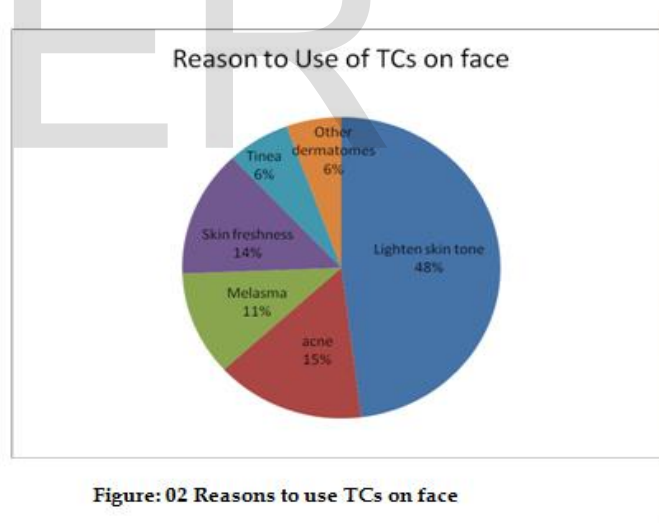


Figure: 02 Reasons to use TCs on face

Figure 02 shows the reasons to use TCs on face and body. The most common reason for patients' use of Topical Corticosteroid on the face was as a fairness cream to light up the skin tone in 60 patients (48%), as an anti acne cream in 19 patients (15.2%), for cure of melasma in 14 patients (11.2%), as skin brightening agent in 17 patients (13.6%), as a treatment of tinea in 8 patients (6.4%), and for other dermatomes (5.6%).

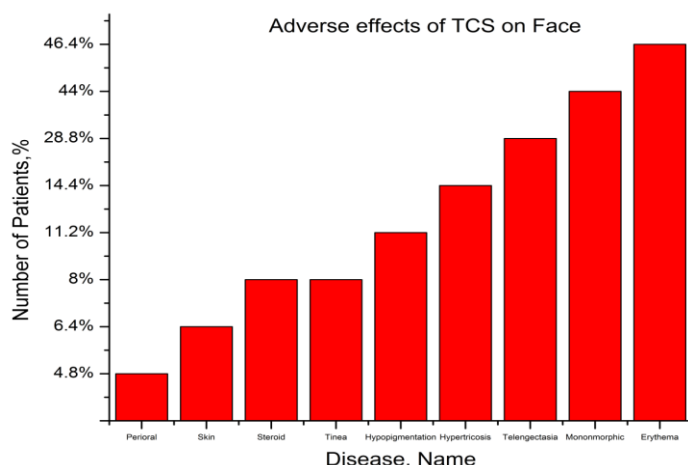


Figure: 03 shows melasma because of continuous use of TCs on face



Figure: 04 shows Comedonal Acne

ADVERSE EFFECTS OF TOPICAL CORTICOSTEROIDS ON FACE



Graph 02: Adverse effect profile of TCS use on face

Localized adverse effects were noted which is shown in graph 02. The most common side effect was erythematous skin which was seen in 58 patients (46.4%), then monomorphous acne which was seen in 55 patients (44%), steroid induced rosaceous skin noticed in 10 patients (8%), hypertrichosis observed

in 48 patients (14.4%), tinea incognita view in 10(8%), telengectasia look in 36 patients (28.8%), hypo pigmentation in 14 patients (11.2%) skin atrophy in 8 patients (6.4%) and perioral dermatitis took noticed in 6(4.8%).

DISCUSSION

The eye-catching posters, advertisement on television allures people toward the indiscriminate usage of topical products. This problem gets worsened as the patient has an easy access for an indefinite number of refills of a single prescription/topical product from the local chemist (over the counter sale) and cosmetic shop leading to the production of adverse effects and sometimes dependence or addiction to these topical products [14]. In Pakistan, the problem is even more pathetic, as indicated by the proportion of patients visiting the Department of Dermatology with adverse effects of using topical steroids. Skin lightening was the main reason for the use of these drugs a number of adverse effects related to its misuse even some of the patient develop "topical steroid dependent face" [15]. In spite of the fact that TCs can cause such serious adverse effects, they are sold without medical prescription and there is little awareness about the adverse effects among the general public [16]. Responsibility could also attributed be to general public they should understand the consequences they will face in future for its irrational use, some marketing companies that they should not made such types of creams and products which may cause harm to public, physicians and even some dermatologists to the extent that they did not emphasize the adverse effects.

CONCLUSION

Topical corticosteroid phobia is a genuine and complex phenomenon [17]. Advertisements regularly link even skin tones with other desirable cosmetic or beauty products promise a 'healthy glow'. This is the backdrop against which people with skin conditions feel they are judged as being more, or less, attractive and acceptable in society.

This may also bring into focus the insufficient knowledge among medical/paramedical personnel about the proper use of topical corticosteroids. It may reflect the shortcomings of the continuing medical education program with regard to this problem [18].

Education of the general public through media programs and introduction of continuing medical education programs for medical, paramedical personnel and pharmacists are probably the most important steps to be taken to create awareness about the hazards of misuse of topical corticosteroids. Secondly, legal approaches should include the enforcement of the existing legislation that potent topical corticosteroids cannot be sold over-the-counter and without the prescription of a qualified doctor [19].

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