

Misuse of Topical Corticosteroids Among Patients Attending the Dermatology Outpatient Clinic of Rivers State University Teaching Hospital, Portharcourt, Nigeria

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Abstract

Background: Topical corticosteroids are commonly used to treat various dermatological conditions. However, their misuse and abuse are very common in Nigeria. This is mainly due to the fact that they can be easily obtained from any pharmacy outlet or chemist shop without a doctor's prescription and it gives immediate relief in many dermatological diseases. This misuse can lead to adverse effects, including skin thinning, telangiectasia, and steroid dependence.

Objective: To assess the prevalence of topical steroid misuse among patients attending a skin clinic in Portharcourt, Nigeria.

Methods: This is a consecutive sampling study conducted among 290 outpatients attending a skin clinic. Data was retrieved from their medical records on demographic characteristics, prior usage of topical medications before dermatological consultation, types of steroids used and diagnosis.

Results: The study revealed that (87) 30% of patients had used topical steroids prior to seeking consultation for their skin disease, without medical supervision. Out of this number, majority (61) 70.1% made use of triple action combination creams (containing steroid, antibacterial and antifungal drugs). The rest made use of plain topical steroids. Most of the patients obtained topical steroids from pharmacies or over-the-counter without prescriptions.

Keywords: *Corticosteroids; Misuse; Dermatology outpatient; Clinic*

1. Introduction

Topical corticosteroids are widely used in the treatment of various dermatological conditions, including eczema, psoriasis, and dermatitis due to their efficacy [1]. However, the misuse and abuse of these medications have become a growing concern

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globally, particularly in low- and middle-income countries like ours. In Nigeria, the ease of access to topical steroids over-the-counter, coupled with inadequate regulation and lack of awareness about their proper use, has contributed to their widespread misuse. Patients are usually prescribed these drugs by pharmacists, patent medicine shop owners, nurses and other health workers or on the advice of friends, relatives or neighbours [2,3]. The excessive use of topical steroids can lead to a range of adverse effects, including skin thinning, rosacea, and acneiform eruptions [4]. Furthermore, the long-term use of these medications can also lead to dependence and rebound phenomenon, making it challenging to treat underlying skin conditions [5].

This study aimed to investigate the prevalence of topical steroid misuse among patients attending a skin clinic in Port Harcourt, Nigeria. The findings of this study will contribute to the existing body of knowledge on this issue and inform strategies for addressing topical steroid abuse in Nigeria.

2. Methodology

The Rivers State University Teaching Hospital is located in Portharcourt, in the South-South geopolitical zone of Nigeria. Most patients attend this clinic from within the city and its suburbs while a few come from outside the state. Detailed medical history is obtained from every new patient and this includes past medical history as well as any prior usage of any drugs for the present skin disease. It is from these records that data for this study were obtained and entered into Microsoft Excel sheet version and subsequently analyzed with SPSS version 21.

3. Results

A total of 290 subjects were studied, there were 101, males and 189 females. Age range is between 6 months and 88 years. Mean age is 31.66 ± 16.87 years. Most of the patients (237) 81.72% were adults aged 18 years and above.

The commonest diagnosis seen was dermatophytosis (28) 8.66%, followed by acne vulgaris and acneiform eruptions (24) 7.43%.

Out of the number of patients studied, 30% (87) admitted to the use of topical steroids prior to seeking consultation for the skin disease eight of which had more than 1 dermatological diagnoses. This makes a total of 95 dermatological diagnoses. Of this number, 61 patients (70.11%) utilized triple action creams (steroid, antibacterial and antifungal combination cream). The rest (26) 29.88% made use of plain topical steroids of varying strengths. The duration of the patients' symptoms before seeking dermatological consultation ranged between 0.01 - 30 years; with a mean of 3.0511 ± 4.57646 years.

Diagnosis of the patients that abused topical steroids are as in TABLE 2.

Diseases classified as miscellaneous include: Sycosis cruris, Drug eruption, Miliaria and Keratolysis exfoliativa.

TABLE 1. Demographic Data of the Patients.

| Variable | Number | Percentage |
|-----------------------|--------|------------|
| Sex | 189 | 65.17 |
| Females | 101 | 34.82 |
| Males | | |
| Age | | |
| <18 years | 53 | 18.27 |
| >18 years | 237 | 81.72 |
| Nationality | | |
| Nigerian | 290 | 100 |
| Non-Nigerian | 0 | 0 |
| Occupation | | |
| Employed | 165 | 56.89 |
| Unemployed | 16 | 5.52 |
| Economically inactive | 109 | 37.58 |

TABLE 2. Diagnoses of patients who misused topical steroids.

| Infectious diseases | Number | Subtotal | Percentage |
|-----------------------------------|--------|----------|------------|
| Scabies | 8 | | |
| Tinea corporis | 2 | | |
| Tinea incognito | 11 | | |
| Tinea cruris | 1 | | |
| Pityriasis versicolor | 8 | | |
| Candidiasis | 4 | | |
| Subcutaneous mycosis | 1 | | |
| Warts | 3 | | |
| Molluscum contagiosum | 1 | 39 | 41.05% |
| Acne/Acneiform eruptions | | | |
| Acne vulgaris | 6 | | |
| Pseudofolliculitis Barbae | 2 | | |
| Steroid acne | 2 | 10 | 10.52% |
| Papulosquamous dermatosis | | | |
| Psoriasis | 4 | | |
| Seborrheic dermatitis | 1 | | |
| Lichen planus | 1 | | |
| Pityriasis lichenoides | | | |
| Chronica | 1 | 7 | 7.36% |
| Eczemas | | | |
| Atopic dermatitis | 5 | | |
| Contact dermatitis | 3 | | |
| Lichen Simplex | 2 | | |
| Chronicus | | | |
| Prurigo Nodularis | 1 | | |
| Pompholyx | 1 | 12 | 12.63% |
| Disorders of pigmentation | | | |
| Vitiligo | 2 | | |
| Postinflammatory | 3 | | |
| Pigmentation | | 5 | 5.26% |
| Tumours and genodermatosis | | | |
| Kaposi sarcoma | 1 | | |

| | | | |
|---|---|----|-------|
| Seborrheic keratosis/ Dermatosis papulosa nigra | 1 | | |
| Sebacous cyst | 1 | | |
| Keloids | 1 | | |
| Lymphangioma circumscriptum | 1 | | |
| Kerato acanthoma | 1 | 6 | 6.32% |
| Autoimmune diseases | | | |
| Discoid lupus erythematosus | 2 | | |
| Systemic lupus erythematosus | 1 | 3 | 3.12% |
| Pruritic Dermatitis | | | |
| Urticaria/ Angioedema | 1 | | |
| Papular urticaria | 4 | | |
| Pruritic papular eruption of HIV | 1 | 6 | 6.32% |
| Miscellaneous | 7 | 7 | 7.36% |
| Total | | 95 | 100% |

4. Discussion

The relative lack of Dermatologists and poor health seeking behavior of the populace has led to consultation with unqualified health personnel or quacks, family members and friends as well as self- medication. The patients usually seek appropriate consultation when there's failure of adequate remission of symptoms following these unauthorized consultations. As can be seen in this study, the average duration of symptoms prior to seeking dermatological consultation is well over 3 years. One of the consequences of these practices is the wide spread abuse of topical steroids for virtually every skin disease.

The present study revealed a disturbingly high prevalence of topical steroid abuse among patients attending our skin clinic. The findings indicate that 30% of patients were using topical steroids to treat their skin disease prior to seeking dermatological consultation highlighting a significant public health concern. A study done in India revealed an almost equal prevalence of 29.2% [2]. Other studies done elsewhere revealed a lower prevalence of topical steroid abuse (7.9% and 11.77%) [6,7]. While another revealed a higher level than that noted in our study (61.2%) [3]. All these points to the fact that topical steroid abuse is widespread.

Majority of the patient that misused topical steroids made use of triple action combination creams. This is not surprising given the fact that triple action creams constitute over of topical steroids sold in most pharmacy outlets in Nigeria [8].

Most of the patients that misused topical steroids had infectious dermatosis (41.05%), commonest of which is dermatophytosis followed by acne and acneiform eruptions. A study done elsewhere revealed exactly the same findings [7,9-13]. The reason for this may be attributable to the relatively high prevalence of these diseases and the rapid but temporary relief that patients tend to get on application of topical steroids to these lesions. However, this is not without its consequences. Topical steroids are known to convert dermatophytosis to tinea incognito; albeit after a temporary relief. They can also cause steroid acne and

convert acne vulgaris to steroid acne after a prolonged usage. Some of the patients with a history of topical steroid abuse in this study presented with these complications. (see TABLE 2).

A large number patients in this study with other forms of infectious dermatosis also treated their skin lesions with topical prior to seeking dermatological consultation. These dermatoses include scabies, pityriasis versicolor, warts, molluscum contagiosum, etc. Scabies is a common infectious skin disease for which topical steroids were administered by the patients. Topical steroids are known to have a negative impact on scabies. They mask the symptoms, worsen the infestation and delay healing [14,15]. Topical steroids application are also known to trigger Norwegian or crusted scabies developing in patients with misdiagnosed scabies infestation [16]. The Negative effects of topical steroids on other infectious skin diseases cannot be over-emphasized. Topical steroids are known to suppress the inflammatory response, making it difficult to diagnose the underlying infection. They can also impair the immune system's ability to fight off the infection, leading to its spread or worsening of lesions. They slow down the healing process by reducing inflammation, which is a necessary step in the healing process.

There's an Increased risk of complications when infectious dermatosis is treated by topical steroids instead of the appropriate antimicrobial agent. These complications include scarring, abscesses, or systemic infections.

However, patients tend to continue the applications of topical steroids despite the negative effects because they alleviate symptoms, making the patient more comfortable. This relief is only temporary and the symptoms relapse on discontinuation of the steroids. This makes the patient to be steroid dependent with its attendant complications and also to present late to the dermatologist. A smaller proportion of patients in the study utilized topical steroids for non-infectious dermatosis. Although, they can be used to manage and control such skin diseases, the patients will eventually seek specialist attention after sometime with the hope of getting a permanent cure.

5. Limitations

This is a hospital-based study and so may not reflect the actual prevalence in the community.

6. Conclusion

There is a high prevalence of topical steroid abuse in our study population and this highlights a significant public health concern. Patients with infectious dermatosis, acne vulgaris and acneiform eruptions are the highest abusers. Addressing this issue will require a multi-faceted approach, including education, regulation of over-the-counter sales and improved medical supervision.

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