



Topical Steroids: Awareness and Misuse Among General Medical Practitioners

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ABSTRACT

Introduction: Topical steroids (TS) contributed in the management of several inflammatory, tumoral or allergic dermatoses. However, their misuse may lead to serious or even irreversible adverse effects. This study aimed to evaluate the knowledge and attitudes of general medical practitioners in Morocco regarding topical steroids use and misuse. **Materials and Methods:** Cross-sectional national survey over a 4-month period from 01/09/2022 to 30/12/2022. The data was collected by a Google Forms questionnaire which was shared on different professional groups on the social networks. The target population was Moroccan general practitioners. Data analysis was performed by Excel software. **Results:** A total of 200 general medical practitioners answered the questionnaire, of which 133(66.5%) practiced in the public sector and 67(33.5%) in the private sector. 11% had rated their frequency of prescription as high, 56% as medium and 33% as minimal or rare; the indications were dominated by eczema, atopic dermatitis and psoriasis. The prescription of topical corticosteroids started from the age of 1 year in 32.5% of general practitioners while the majority prescribed them at any age. Sixty (30%) were aware of the pharmacological effects of topical corticosteroids. The most frequently prescribed galenic form was cream in 95% of cases followed by gels, lotions and finally preparations. One hundred and thirty-three (66%) had answered correctly to the indications of topical corticosteroids and 106(53%) prescribed them in short cures. Few doctors (1%) had been able to identify all side effects. One hundred and fifty (75%) of the general medical practitioners had already seen patients presenting adverse effects dominated by skin atrophy, delayed healing, depigmentation, fungal or bacterial infection; their response consisted of degradation in 75% of cases or switching to a lower class, while 11.5% had wrongly suggested an abrupt discontinuation. **Conclusion:** The high frequency of topical steroids side effects is an increasing problem encountered by dermatologists. Lack of some general practitioners and patient awareness are also important underlying factors. To our knowledge, this is the first Moroccan study

that aimed to evaluate the knowledge, attitudes, and behavior regarding topical corticosteroids by general medical practitioners.

Keywords: general medical practitioners, misuse, use, awareness, topical steroids.

INTRODUCTION

Topical steroids (TS) contributed in the management of several inflammatory, tumoral or allergic dermatoses [1]. However, their misuse may lead to serious or even irreversible adverse effects.

This study aimed to evaluate the knowledge and attitudes of general medical practitioners in Morocco regarding topical steroids use and misuse.

MATERIELS AND METHODS

A cross-sectional national survey was carried out over a 4-month period from 01/09/2022 to 30/12/2022. The data was collected by a Google Forms questionnaire which was shared on different professional groups on the social networks: Facebook and WhatsApp. The target population was Moroccan general medical practitioners in both public and liberal sectors.

The questionnaire had one section dealing with basic demographics: age, years of practice, public or liberal sector followed by a general awareness section which covered awareness regarding different classes of TS, galenic forms, indications and possible adverse effects. Further questions covered any prescribing experience, if present, and reflection on their use and misuse.

Data analysis was performed by Excel software. Participation in the study was voluntary, and data confidentiality was ensured.

RESULTS

A total of **200** general medical practitioners answered the questionnaire, of which 133 (66.5%) practised in the public sector and 67 (33.5%) in the private sector; 34.5% had been practising for more than 20 years, 17.5% between 10 and 20 years, 15% for between 5 and 10 years and 33% for less than 5 years. 11% had rated their frequency of prescription as high, 56% as medium and 33% as minimal or rare; the indications were dominated by eczema, atopic dermatitis and psoriasis. The prescription of topical corticosteroids started from the age of 1 year in 32.5% of general practitioners while the majority prescribed them at any age, even from birth.

Sixty (30%) were aware of the pharmacological effects of topical corticosteroids including anti-inflammatory, anti-allergic and anti-tumor effects. The most frequently prescribed galenic form was cream in 95% of cases followed by gels, lotions and finally preparations.

One hundred and fourteen (57%) had chosen the cream/lotion galenic form as the most suitable for wet and sweating lesions, 70 (35%) had chosen the gel form as suitable for hairy areas, 142 (71%) had chosen the ointment form suitable for dry or scabby lesions; the remaining doctors had chosen unsuitable galenic forms.

One hundred and thirty-three (66%) had answered correctly to the indications of topical corticosteroids and 106 (53%) prescribed them in short cures not exceeding 10 days. Very few doctors (1%) had been able to identify all side effects; the rest were only aware of some of them. One hundred and fifty (75%) of the general medical practitioners had already seen patients presenting adverse effects dominated by skin atrophy, delayed healing, depigmentation, fungal or bacterial infection; their response consisted of degeneration in 75% of cases or switching to a lower class, while 11.5% had wrongly suggested an abrupt discontinuation.

DISCUSSION

Topical corticosteroids have revolutionized dermatological therapy since the 1950s. There are currently about 20 different molecules classed according to their anti-inflammatory activity and are among the most commonly used medications in dermatology clinics [2].

Many inflammatory or tumoral skin diseases are sensitive to them. However, the ability of topical steroids to provide relief from symptoms has led to the misuse of these agents by both medical practitioners and patients, resulting in an ever-increasing incidence of adverse effects [3].

This is the first Moroccan survey, to our knowledge, that evaluates the use of topical steroids by general medical practitioners. The figure 1 shows side effects of a chronic misuse of TS in a psoriasis patient. The patient in the figure 2 misused TS in her face, and consequently presented with steroid rosacea. The figure 3 is related to a woman treated by a general practitioner for a chronic pruritus by a TS for 2 years, while the patient had scabies confirmed by dermoscopy which led to extended lesions.

In order to minimize the risk of local or systemic adverse effects, their use must take into consideration the dermatosis being treated and its location, and thus the choice of the appropriate topical steroid, its mode and rhythm of application. Side effects of topical steroids may vary from local effects, such as atrophy, striae, telangiectasia, hypertrichosis and acneiform eruptions to more serious systemic side effects due to hypothalamo-pituitary axis suppression. An upcoming latest trend that has been noticed is the rise in the superficial dermatophytosis. In many Indian studies, clobetasol propionate is the commonest steroid misused [4,5,6,7].

Other studies have tried to highlight the various side effects and harm caused by misuse of topical steroids and its combinations. These studies have tried to bring to the notice of regulatory authorities about the damage caused by the free availability of these creams. One of the new emerging concerns is its use as fairness cream; which is also frequently seen in our country [8,9].

The information of the patient and/or his entourage allow to obtain optimal results as well as awareness programs preferably by dermatologists.

A study revealed that general practitioners and pharmacists were more or less of the same level of inadequacy in educating the patients. A significant gap in knowledge related to specific side effects and awareness of different classes of TC was noted. The study also reaffirmed that pharmacists' advice about corticosteroid use was very influential in patients' compliance [10, 11].

CONCLUSION

The high frequency of topical steroids side effects is an increasing problem encountered by dermatologists. Lack of some general practitioners and patient awareness as well as the ease of obtaining topical corticosteroids without a prescription are also important underlying factors. As the first point of contact, the pharmacist has an important role in controlling topical corticosteroid abuse.

To our knowledge, this is the first Moroccan study that aimed to evaluate the knowledge, attitudes, and behavior regarding topical corticosteroids by general medical practitioners; it revealed a need to strengthen the clinical awareness about the use and adverse effects of TS at a deeper level.



Fig.1: Side effects of a chronic misuse of TS in a psoriasis 20-years- old patient.



Fig.2: A misuse of TS in the face leading to steroid rosacea.



Fig.3: A patient treated by a general practitioner for a chronic pruritus by a TS, while the patient had scabies confirmed by dermoscopy which led to extended lesions.

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