

Comparison of Topical Treatment Preferences of Physicians in Dermatological Diseases

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ABSTRACT

Objective: Regardless of their specialty, physicians frequently encounter dermatological conditions. We aimed to determine the topical medication choices of physicians for various dermatoses and to identify differences in preferences between dermatologists and non-dermatologist physicians.

Methods: Using an online survey, physicians were asked to select three preferred topical antibiotics/antiseptics, antifungals, and corticosteroids when treating a pyoderma, dermatophytosis, or a dermatosis necessitating topical corticosteroid therapy. Statistical analysis was performed using Statistical Package for the Social Sciences v.27.

Results: Among 358 physicians, 24.0% were dermatologists, and 76.0% were non-dermatologist physicians. The mean age was 38.40, and the average duration of medical practice was 14.04 years. The most frequently chosen topical antibacterials were fusidic acid (74.3%) and mupirocin (65.9%); topical antifungals were isoconazole nitrate + diflucortolone valerate (56.4%), tioconazole (27.7%), and naftifine (25.1%); and topical corticosteroids were clobetasol propionate (38.5%), methylprednisolone aceponate (36.6%), and mometasone furoate (34.6%). Dermatologists used nitrofurazone and izokonazol nitrate + diflucortolone valerate less frequently compared to non-dermatologists (0% vs. 27.6% and 8.1% vs. 71.7%, respectively; p-values <0.001). Family physicians/general practitioners constituted the largest group selecting clobetasol propionate (28.3%).

Conclusion: Physicians in our country predominantly choose fusidic acid and mupirocin as topical antibiotics, aligning with existing literature. However, nitrofurazone, causing contact dermatitis, and corticosteroid-containing antifungals with the potential for complications due to inappropriate use are frequently preferred by non-dermatologist physicians but not by dermatologists. The bold choice of clobetasol propionate, an ultrapotent topical corticosteroid, by family physicians/general practitioners is an important issue to address during medical education and post-graduation.

Keywords: Physicians, Antibiotics, Corticosteroids, Prescriptions



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INTRODUCTION

Dermatology is a branch of medicine that includes diseases and conditions frequently encountered in daily practice. Regardless

of their speciality, physicians face skin diseases of their patients or relatives and may have to recommend treatment for these conditions.

It is common for a family physician to treat a dermatophytosis or an eczema, for an orthopaedic surgeon to recommend an antibiotic ointment for the incision site after a surgical procedure, or for a paediatrician to prescribe a diaper dermatitis treatment for a patient. In addition, non-dermatologist physicians are encountering dermatological diseases with increasing frequency due to reasons such as patients having difficulty in reaching a dermatologist. A study conducted in the United States of America showed that only 41% of patients with dermatological diagnoses were examined by dermatologists in 1989 [1]. In another study, it was found that 39% of the referrals with dermatological diagnosis were made to family physicians [2]. However, in a previous study, it was found that family physicians had theoretical misconceptions about the etiopathogenesis and management of some skin diseases [3].

Sometimes, topical treatment preferences of physicians may differ due to differences in approaches between specialities. For example, it can be seen that a topical preparation containing nitrofurazone and polyethylene glycol, which is well known to cause allergic contact dermatitis by dermatologists, is widely preferred by orthopaedists, general surgeons, or plastic surgeons [4]. Although this issue is exemplified by case reports or case series demonstrating the complications caused by a single medication as in the above publication, there is no study in the literature showing which topical medication is preferred by physicians from different specialities in various dermatological conditions.

The aim of our study was to determine the medications chosen by physicians in the topical treatment of various skin diseases and to reveal the differences in preferences between dermatologists and non-dermatologists in this field.

Main Points;

- The most frequently preferred topical antibiotic among physicians is fusidic acid, topical antifungal is isoconazole nitrate + diflucortolone valerate, and topical corticosteroid is clobetasol propionate.
- The frequent preference of physicians for nitrofurazone, isoconazole nitrate + diflucortolone valerate, and clobetasol propionate, all of which can lead to various complications, is an issue that should be emphasized during medical education.

MATERIALS AND METHODS

The study was conducted by the dermatologists of our university and local ethics committee approval was obtained (Ethics committee approval code: 2023/0551). Based on the responses received, a questionnaire consisting of up to 12 questions was prepared in Google Forms format and sent online to both dermatologists and non-dermatologist physicians. The responses obtained from a total of 358 physicians were recorded.

Firstly, participants' age, gender, year of graduation, specialty, academic titles, type of institution they work at, whether they worked as general practitioners before their residency, the duration of their work as general practitioners if applicable, and the frequency of encountering dermatological conditions were inquired to gather general and professional characteristics. The physicians were then asked questions such as "which topical antibiotics/antiseptic creams or topical medications do you prefer more frequently when you encounter an infectious skin condition?", "when you diagnose a fungal infection on the skin, please tick the options you prefer most as topical antifungals" and "which one(s) do you prefer most as topical corticosteroid-containing medications?" and they were asked to select up to three topical antibacterial/antiseptic, topical antifungal and topical corticosteroid preparations, respectively.

Statistical Analysis

The statistical analysis of the data was conducted using IBM Statistical Package for the Social Sciences [SPSS] v.27. For the necessary variables, means and standard deviations were calculated for numerical data, and frequencies for categorical data. In comparing dermatologists and non-dermatologist physicians, the Pearson chi-square test was used for categorical data, and when necessary, the Fisher's test was employed (based on the ratio of the expected count to all cells and the minimal expected count). A p-value less than 0.05 was considered statistically significant.

RESULTS

Of the total of 358 physicians, 86 (24.0%) were dermatologists, while 272 were from other specialties or general practitioners. Among the participants, 54.7% were female, and 45.3% were male. The mean age of the physicians was 38.40 ± 10.03 years, and they had an average of 14.04 ± 10.28 years of experience in the medical field. When the physicians were classified based on the year they graduated from medical school, 11.5% graduated between 1978 and 1993, 13.4% between 1994 and

2003, 41.6% between 2004 and 2013, and 33.5% between 2014 and 2023. Among the participants, 48.6% were specialists, 25.7% were residents, 10.6% were associate professors, 2.5% were professors, and 12.6% were general practitioners. In terms of their medical specialties, following dermatology, the most common specialties among the participants were family medicine (10.9%), general practice (10.9%), and pediatrics (8.9%). Regarding their workplace, physicians were distributed as follows: training and research hospital (24.6%), state university (16.2%), city hospital (15.4%), state hospital (11.2%), family health center (10.6%), private hospital (9.5%), and private practice (7.3%). The proportion of physicians who encountered a dermatological issue at least once a day was 58.1% in total, including dermatologists (24.0%), those who encountered skin diseases many times a day (14.8%) and those who encountered them once or a few times a day (19.3%).

In response to the question “Which topical antibiotics/antiseptic creams or topical medications do you prefer more frequently when you encounter an infectious skin condition?” the preferred topical antibacterials were listed as follows: fusidic acid (74.3%), mupirocin (65.9%), bacitracin + neomycin (25.7%), nitrofurazone (20.9%) and oxytetracycline (16.2%), and the rate of those who answered this question as “I have not encountered such a situation” or “I refer to a dermatologist” was 1.7% (Table 1). In response to the question “when you diagnose a fungal infection on the skin, please tick the options you prefer most as topical antifungals” the most commonly chosen options were isoconazole nitrate + diflucortolone valerate combined preparations (56.4%), tioconazole (27.7%), naftifine (25.1%), sertaconazole (20.7%), and terbinafine (20.1%) (Table 2). Those who answered this question with “I have not encountered such a situation” or “I refer to a dermatologist” accounted for 9.2%. The question “which one(s) do you prefer most as topical corticosteroid-containing medications?” was answered with the following preferences: clobetasol propionate (38.5%), methylprednisolone aceponate (36.6%), mometasone furoate (34.6%), fusidic acid + betamethasone valerate combined preparations (31.8%), and hydrocortisone acetate (27.1%) (Table 3). Approximately 8.4% of the participants answered this question with “I have not encountered such a situation.”

When the preferences for topical antibacterial drugs were compared between the two groups, dermatologists were significantly more likely to prefer fusidic acid (95.3% vs. 67.6%; $p<0.001$), mupirocin (79.1% vs. 61.8%; $p=0.003$), clindamycin solution (15.1% vs. 1.1%; $p<0.001$), and nadifloxacin (14.0% vs.

1.1%; $p<0.001$) compared to non-dermatologists. However, they never preferred nitrofurazone (0% vs. 27.6%; $p<0.001$) (Table 1). When the responses to the question “when you diagnose a fungal infection on the skin, please tick the options you prefer most as topical antifungals” were compared between the two groups, dermatologists were significantly more likely to prefer butenafine (25.6% vs. 5.1%; $p<0.001$), clotrimazole (15.1% vs. 6.3%; $p=0.01$), naftifine (73.1% vs. 9.9%; $p<0.001$), miconazole + aluminum hydroxychloride combined preparation (4.7% vs. 0.4%; $p=0.013$), terbinafine (33.7% vs. 15.8%; $p<0.001$), isoconazole (20.9% vs. 8.5%; $p=0.002$), and sertaconazole (52.3% vs. 10.7%; $p<0.001$), while they significantly less preferred isoconazole nitrate + diflucortolone valerate combination preparations (8.1% vs. 71.7%; $p<0.001$) (Table 2). When responses to the question “which one(s) do you prefer most as topical corticosteroid-containing medications?” were compared between the two groups, dermatologists were significantly more likely to prefer methylprednisolone aceponate (55.8% vs. 30.5%; $p<0.001$), betamethasone dipropionate (14.0% vs. 6.6%; $p=0.032$), prednicarbate (10.5% vs. 1.5%; $p<0.001$), clobetasol-17-butyrate (11.6% vs. 3.3%; $p=0.005$), hydrocortisone-17-butyrate (20.9% vs. 8.1%; $p<0.001$), mometasone furoate + fusidic acid combined preparation (8.1% vs. 2.6%; $p=0.048$), and mometasone furoate (73.3% vs. 22.4%; $p<0.001$). They were also significantly less likely to prefer hydrocortisone acetate (16.3% vs. 30.5%; $p=0.01$) and isoconazole nitrate + diflucortolone valerate combination (4.7% vs. 26.1%; $p<0.001$) (Table 3).

The evaluation also performed which specialty of physicians preferred a medication the most. Among the antibacterial drugs, 30.8% of those who chose fusidic acid, 28.8% of those who chose mupirocin, 81.3% of those who chose clindamycin solution and 80% of those who chose nadifloxacin were dermatologists, while 30.7% of those who chose nitrofurazone, 25% of those who chose povidone iodine, 26.1% of those who chose bacitracin + neomycin combination, 31% of those who chose oxytetracycline, 25% of those who chose rifamycin and 50% of those who chose tetracycline were family physicians (specialist/residents) or general practitioners (Table 4-5). Regarding antifungal drugs, 61.1% of butenafine users, 43.3% of clotrimazole users, 70% of naftifine users, 57.1% of miconazole + triamcinolone acetonide combination users, 27.9% of ketoconazole users, 80% of miconazole + aluminum hydroxide chloride combination users, 40.3% of terbinafine users, 43.9% of isoconazole users, and 60.8% of sertaconazole users were dermatologists. However, 27.7% of isoconazole nitrate + diflucortolone valerate

combination users, 39.4% of tioconazole users, 37% of ciclopirox users, and 33.3% of oxiconazole users were family physicians (specialists/residents) or general practitioners (Table 4-5). For topical corticosteroids, 44.4% of alclometasone users, 36.6% of methylprednisolone aceponate users, 34.8% of betamethasone valerate users, 69.2% of prednicarbate users, 52.6% of clobetasol-17-butyrate users, 28.1% of fusidic acid + betametazone valerate

combination users, 45% of hydrocortisone-17-butyrate users, 53.8% of fusidic acid + mometasone furoate combination users, and 50% of mometasone furoate users were dermatologists. In contrast, 28.3% of clobetasol propionate users and 27.8% of hydrocortisone acetate users were family physicians (specialists/residents) or general practitioners (Table 4-5).

Table 1. Distribution of physicians' topical antibiotic/antiseptic preferences for all physicians, dermatologists and non-dermatologist physicians.

	All physicians	Dermatologists	Non-dermatologists	p
fusidic acid	%74.3	%95.3	%67.6	<0.001*
mupirocin	%65.9	%79.1	%61.8	<0.01*
bacitracin + neomycin	%25.7	%19.8	%27.6	0.15
nitrofurazone	%20.9	%0	%27.6	<0.001*
oxytetracycline	%16.2	%11.6	%17.6	0.19
povidone iodine	%12.3	%9.3	%13.2	0.33
rifamycin	%12.3	%9.3	%13.2	0.33
clindamycin	%4.5	%15.1	%1.1	<0.001*
nadifloxacin	%4.2	%14.0	%1.1	<0.001*
tetracycline	%1.1	%1.2	%1.1	1.00

Each ratio shows what percentage of the physician group in the relevant column prefers the drug in the relevant row.

* p<0.05 for the difference between the preference rates of dermatologists and non-dermatologists

Table 2. Distribution of topical antifungal preferences of physicians for all physicians, dermatologists and non-dermatologist physicians.

	All physicians	Dermatologists	Non-dermatologists	p
isconazole nitrate + diflucortolone valerate	%56.4	%8.1	%71.7	<0.001*
tioconazole	%27.7	%20.9	%29.8	0.11
naftifine	%25.1	%73.3	%9.9	<0.001*
sertaconazole	%20.7	%52.3	%10.7	<0.001*
terbinafine	%20.1	%33.7	%15.8	<0.001*
ketoconazole	%17.0	%19.8	%16.2	0.44
oxiconazole	%15.9	%19.8	%14.7	0.26
isconazole	%11.5	%20.9	%8.5	<0.01*
butenafine	%10.1	%25.6	%5.1	<0.001*
clotrimazole	%8.4	%15.1	%6.3	0.01*
ciclopirox	%7.5	%5.8	%8.1	0.49
miconazole + triamcinolone acetate	%2.0	%4.7	%1.1	0.06
miconazole + aluminium, hydroxychloride	%1.4	%4.7	%0.4	0.01*

Each ratio shows what percentage of the physician group in the relevant column prefers the drug in the relevant row.

* p<0.05 for the difference between the preference rates of dermatologists and non-dermatologists.

Table 3. Distribution of physicians' topical corticosteroid preferences for all physicians, dermatologists and non-dermatologists.

	All physicians	Dermatologists	Non-dermatologists	p
clobetasol propionate	%38.5	%40.7	%37.9	0.64
methylprednisolone aceponate	%36.6	%55.8	%30.5	<0.001*
mometasone furoate	%34.6	%73.3	%22.4	<0.001*
fusidic acid + betamethasone valerate	%31.8	%37.2	%30.1	0.22
hydrocortisone acetate	%27.1	%16.3	%30.5	0.01*
isoconazole nitrate + diflucortolone valerate	%20.9	%4.7	%26.1	<0.001*
hydrocortisone-17-butyrate	%11.2	%20.9	%8.1	<0.001*
betamethasone dipropionate	%8.4	%14.0	%6.6	0.03*
betamethasone valerate	%6.4	%9.3	%5.5	0.21
clobetasone-17-butyrate	%5.3	%11.6	%3.3	<0.01*
fusidic acid + mometasone furoate	%3.9	%8.1	%2.6	<0.05*
prednicarbate	%3.6	%10.5	%1.5	<0.001*
prednisinolone	%3.1	%0	%4.0	0.07
alclomethasone dipropionate	%2.5	%4.7	%1.8	0.23

Each ratio shows what percentage of the physician group in the relevant column prefers the drug in the relevant row.

* p<0.05 for the difference between the preference rates of dermatologists and non-dermatologists

Table 4. Drugs most frequently preferred by dermatologists and the proportion of dermatologists among physicians who prefer these drugs

Medication	Proportion of dermatologists among physicians who prefer this drug (%)
Antibacterial/antiseptic	
fusidic acid	%30.8
mupirocin	%28.8
clindamycin	%81.3
nadifloxacin	%80.0
Antifungal	
butenafine	%61.1
clotrimazole	%43.3
naftifine	%70
miconazole + triamcinolone acetonide	%57.1
ketoconazole	%27.9
miconazole + aluminium hydroxychloride	%80.0
terbinafine	%40.3
isoconazole	%43.9
sertaconazole	%60.8
Corticosteroids	
alclomethasone	%44.4
methylprednisolone aceponate	%36.6
betamethasone valerate	%34.8
prednicarbate	%69.2
clobetasone-17-butyrate	%52.6
fusidic acid + betamethasone valerate	%28.1
hydrocortisone-17-butyrate	%45.0
fusidic acid + mometasone furoate	%53.8
mometasone furoate	%50.0

Table 5. Drugs most frequently preferred by family medicine specialists/residents and practitioners and the proportion of family physicians/practitioners among physicians who prefer these drugs

Medication	Proportion of family physicians/ practitioners among physicians who prefer this drug (%)
Antibacterial/antiseptic	
nitrofurazone	%30.7
povidone iodine	%25.0
bacitracin + neomycin	%26.1
oxytetracycline	%31.0
rifamycin	%25.0
tetracycline	%50.0
Antifungal	
isoconazole nitrate + diflucortolone valerate	%27.7
tioconazole	%39.4
ciclopirox	%37.0
oxiconazole	%33.3
Corticosteroid	
clobetasol propionate	%28.3
hydrocortisone acetate	%27.8

Among physicians who graduated between 2004 and 2013, the proportion of dermatologists was significantly lower (10.1%) compared to those who graduated in other years (43.9% between 1978-1993, 29.2% between 1994-2003, 32.5% between 2014-2023; $p < 0.001$). Those who graduated between 1978 and 1993 preferred klobetazon-17-butyrate (22.0%; $p < 0.001$), betamethasone valerate (24.4%; $p < 0.001$), tioconazole (61.0%; $p < 0.001$), and oxiconazole (31.7%; $p = 0.018$) more frequently but used fusidic acid + betamethasone valerate combination products less often (12.2%; $p = 0.007$). Those who graduated between 1994 and 2003 preferred cyclopirox (20.8%; $p < 0.001$) more often. Those who graduated between 2004 and 2013 preferred isoconazole nitrate + diflucortolone valerate combination more frequently (72.5%; $p < 0.001$) but used mometasone furoate (25.5%; $p = 0.008$), clindamycin solution (1.3%; $p = 0.018$), naftifine (12.1%; $p < 0.001$), and miconazole + triamcinolone acetonide combination (0%; $p = 0.015$) less often. Finally, those who graduated between 2014 and 2023 preferred fusidic acid (84.2%; $p = 0.018$) and ketoconazole (26.7%; $p = 0.005$) more frequently.

When comparing the frequency of academic titles between dermatologists and non-dermatologist physicians, the

proportions of associate professors and specialists were similar in both groups (10.5% vs. 10.7% and 48.8% vs. 48.5%, respectively). However, among dermatologists, there were significantly higher proportions of residents and professors (34.9% vs. 22.8% and 5.8% vs. 1.5%, respectively; $p < 0.001$). The selection of certain drugs also varied according to academic title. General practitioners preferred isoconazole nitrate + diflucortolone valerate combination more frequently than residents and specialists (80% vs. 46.7% and 55.2%, respectively; $p = 0.006$), oxiconazole more frequently than residents (31.1% vs. 7.6%; $p = 0.012$), naftifine less frequently than residents and specialists (13.3% vs. 40.2% and 20.7%, respectively; $p = 0.003$), sertaconazole and methylprednisolone aceponate less frequently than professors (13.3% vs. 55.6%; $p < 0.05$ and 24.4% vs. 77.8%; $p = 0.037$, respectively). Specialists preferred prednicarbate more frequently than professors (30.8% vs. 15.4%; $p = 0.033$), while professors preferred prednacinolone more frequently than residents and specialists (22.2% vs. 2.2% and 2.9%, respectively; $p = 0.022$). The selection of isoconazole nitrate + diflucortolone valerate combination products for corticosteroid use was also higher among general practitioners compared to residents, specialists, and associate professors (48.9% vs. 16.3%, 17.8%, and 15.8%, respectively; $p < 0.001$).

DISCUSSION

In daily medical practice, all physicians generally face skin diseases and recommend topical medications to their patients or their close relatives. In our study, the medication choices of physicians in situations requiring the use of topical drugs in three commonly encountered scenarios, namely infected skin lesions, dermatophytosis, and the use of topical corticosteroid-containing drugs, were identified and compared between dermatologists and non-dermatologist physicians.

In our study, the responses to these three questions such as “I have not encountered such a situation” or “I refer to a dermatologist” remained at 1.7%, 9.2% and 8.4% for antibiotics, antifungals and corticosteroids, respectively. In addition, approximately 60% of the physicians stated that they encountered a dermatological problem at least once a day. Considering that the proportion of dermatologists among the participants was only 24%, it can be said that these findings confirm our suggestion that physicians, regardless of their specialty, frequently encounter skin diseases.

The first five topical antibiotics selected by all participating physicians and non-dermatologist physicians in our study were fusidic acid, mupirocin, bacitracin + neomycin, nitrofurazone, and oxytetracycline, respectively. Among dermatologists, the most frequently chosen antibiotics were fusidic acid, mupirocin, bacitracin + neomycin, clindamycin, and nadifloxacin, respectively. In our study, fusidic acid and mupirocin were the two most commonly preferred antibiotics by both dermatologists and non-dermatologist physicians. Furthermore, dermatologists significantly preferred these two antibacterials in a higher proportion compared to non-dermatologists. Our findings are in line with the literature, which suggests that these molecules are the most commonly preferred for superficial pyoderms and are equivalent in efficacy to oral antibiotics in impetigo treatment [5, 6]. The third most commonly preferred drug among both dermatologists and non-dermatologists being a preparation containing bacitracin + neomycin in nearly 20% of cases is surprising. Both bacitracin and neomycin are topical antibiotics associated with allergic contact dermatitis in the literature [7, 8]. The most significant difference between the two groups in terms of topical antibacterial preferences was observed in nitrofurazone. None of the dermatologists preferred this molecule, while it was the fourth most preferred antibiotic, chosen by 27.6% of non-dermatologists. Allergic contact dermatitis due to nitrofurazone is a well-known complication that dermatologists are familiar with it, having treated it many times throughout their careers,

and it is well-described in the literature [4, 9]. However, our findings indicate that this experience and literature knowledge are not shared by non-dermatologist physicians. Among the specialities of physicians who chose nitrofurazone, the highest rate was family medicine and general practice with 30.7%. This data does not align with clinical experiences and the literature, which suggest that nitrofurazone is more commonly preferred by surgical specialties. However, this can be explained by the fact that family medicine and general practice specialists constituted the second-largest group after dermatologists among the participants of our study. Nevertheless, based on our findings, it can be said that nitrofurazone's complications should be emphasized, especially during dermatology rotations in medical education and in family medicine specialist training.

The top five topical antifungal choices in dermatophytoses for all participants were isoconazole nitrate + diflucortolone valerate, tioconazole, naftifine, sertaconazole and terbinafine, respectively. Dermatologists preferred naftifine, sertaconazole, terbinafine, butenafine, isoconazole and tioconazole, while non-dermatologists preferred isoconazole nitrate + diflucortolone valerate, tioconazole, ketoconazole, terbinafine and oxiconazole, respectively. The most pronounced differences in topical antifungal preferences between dermatologists and non-dermatologists were observed in the selections of isoconazole nitrate + diflucortolone valerate (8.1% vs. 71.7%), naftifine (73.3% vs. 9.9%), sertaconazole (52.3% vs. 10.7%), terbinafine (33.7% vs. 15.8%), and butenafine (25.6% vs. 5.1%) ($p < 0.001$). Among these, the most striking one is that dermatologists rarely choose combinations containing isoconazole nitrate + diflucortolone valerate, whereas non-dermatologists prefer these preparations in over 70% of cases. Additionally, the majority of those who prefer these drugs (27.7%) are family physicians (specialists/residents) and general practitioners. Dermatologists are more likely to encounter problems caused by the choice of an antifungal combined with a steroid in a mycotic infection, such as discontinuation of treatment due to rapid improvement in symptoms or the development of complications such as atrophy, striae, hypertrichosis, iatrogenic tinea due to prolonged and irregular use [10]. Moreover, dermatologists are expected to be more conscious than other specialists about the side effects of the frequent use of these drugs, even iatrogenic Cushing's syndrome, especially in cases with a diagnosis of diaper dermatitis [11, 12]. Differences between dermatologists and non-dermatologists in the selection of antifungal monotherapies are generally related more to established habits, which active ingredients are used

more frequently in the relevant literature of their specialty, or the marketing and advertising strategies of these drugs, which can vary by specialty, rather than the efficacy or safety data of these drugs. It is not surprising that physicians who prefer drugs like thioconazole, cyclopirox, and oxiconazole, which have been well-known in the market in our country for many years, are mostly family physicians and general practitioners.

One of the most striking findings of our study was that clobetasol propionate, the most potent topical corticosteroid known, was the most preferred topical corticosteroid with a rate of 38.5% among all participating physicians. It is also interesting to note that clobetasol propionate was mostly preferred by family physicians and general practitioners. It can be said that the conditions in which clobetasol propionate should be preferred are skin diseases such as psoriasis, mycosis fungoides, lichen sclerosis, bullous pemphigoid which are mostly treated by dermatologists [13]. When used inappropriately, it can lead to many complications such as atrophy, striae, hirsutism, tinea incognito and iatrogenic Cushing's syndrome, as mentioned above for diflucortolone valerate [13, 14]. Considering that dermatologists treat skin diseases that cannot be effectively managed by other physicians, that they are well-informed about which drugs to choose, how much to apply, for how many days, and to which localization, and finally that they are experienced in recognizing and managing possible complications and educating their patients on this subject, it is understandable that an ultrapotent corticosteroid such as clobetasol propionate is chosen by dermatologists in a certain frequency. Nevertheless, the most frequently preferred topical corticosteroid by the dermatologists participating in our study was mometasone furoate, which has a medium-high potency. The fact that clobetasol propionate is preferred to such a high extent by non-dermatologist physicians -disregarding safety considerations- is an issue that should be emphasized during medical education and rotations. In our study, dermatologists preferred methylprednisolone aceponate, mometasone furoate, hydrocortisone- 17-butyrate and prednicarbate at higher rates than non-dermatologists. These corticosteroid drugs have various potencies and the fact that they are preferred more frequently by dermatologists can be explained by the habits acquired by physicians during their speciality training and the notion gained in the context of master-apprentice relationship rather than the efficacy or safety data of these drugs. Hydrocortisone acetate, a low potency topical corticosteroid, was preferred more frequently by non-dermatologists compared to dermatologists. This finding shows

that physicians of other specialties may act boldly, as seen in the choice of clobetasol propionate, and sometimes they may prefer low potency corticosteroids by displaying a cautious and safety-first approach.

Limitations

There are numerous topical drugs available besides those listed as options in the study. Nevertheless, this limitation was addressed by providing participants with the opportunity to provide open-ended responses under the "other" option. Another limitation is that the proportion of participants in certain specialties may not necessarily align with the distribution of those specialists in our country, and therefore, potentially affecting the accurate determination of drug preferences among physicians in surgical branches.

CONCLUSION

Our study found that physicians in our country prefer two effective and safe topical antibiotics, fusidic acid and mupirocin, which are commonly used worldwide, as the top choices for superficial skin infections. However, it is noteworthy that nitrofurazone, a medication known to cause allergic contact dermatitis, was preferred at a significantly high rate by non-dermatologist physicians, despite none of the dermatologists selecting it. As a topical antifungal drug, the combination of isoconazole nitrate + diflucortolone valerate, which is rarely preferred by dermatologists, was found to be frequently preferred by non-dermatologists. Another striking finding of our study is that clobetasol propionate, considered the most potent topical corticosteroid, is the most frequently chosen topical corticosteroid among non-dermatologist physicians. Considering that this drug is mostly used in cases that should be managed by a dermatologist, this "brave" approach of a significant portion of our physicians is an issue that should be emphasized during medical education. During medical education and after graduation, it should be aimed that specialty-specific practices and traditions that guide the choice of topical medication should be compatible with the experience of dermatologists and be in accordance with the literature data.

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