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Uyuz Tedavisinin Optimizasyonu: Aile Hekimlerinin Tanı ve Tedavi Stratejilerine Bir Bakış

Optimizing Scabies Care: A Look at Family Physician Diagnosis and Treatment Strategies

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ÖZ

Giriş: Çalışmanın amacı, Türkiye'deki aile hekimlerinin uyuz teşhisi ve tedavisiyle ilgili bilgi, tutum ve uygulamalarını değerlendirmektir.

Yöntem: Türkiye'de 160 aile hekimi arasında kesitsel bir çalışma yapılmıştır. Anket, demografi, klinik deneyim, uyuz yönetim uygulamaları ve uyuzun bulaşması ve tedavisi hakkındaki bilgi gibi soruları içeriyordu.

Bulgular: Birinci basamak tedavi olarak en sık kullanılan ilaç permetrin kremdir (%80,6). Hekimlerin birçoğu (%71,25) tekrarlayan tedavi önermekteydi. Neredeyse tüm hekimler (%98,12) yakın temaslıları tedavi etmiş ve hekimlerin %93,75'i hijyen önerileri vermişti. Ancak zoonotik bulaşma konusunda yanlış anlamalar (%46,25) mevcuttu ve bazen gereksiz laboratuvar testleri istenmiştir (%9.37). Majistral preparatların kullanımı konusunda bilgi yetersizlikleri mevcuttu. Dermatoloji uzmanına sevk edilen hastalarda en sık görülen neden tanıdan emin olamamaktı (%75,6).

Sonuç: Türkiye'deki aile hekimleri uyuz yönetiminde bazı tanı başarısı ve aile terapisi gibi bazı güçlü yönlere sahip olsalar da bilgi boşlukları ve tutarsızlıklar vardır. Tanısal doğruluğu artırmak, tedavi uygulamalarını optimize etmek ve uyuz kontrol stratejilerini geliştirmek için eğitim müdahalelerine ihtiyaç vardır.

Anahtar Kelimeler: uyuz, aile hekimleri, pertmetrin, zoonozlar

ABSTRACT

Objective: The aim of this study was to assess the knowledge, attitudes, and practices of family physicians in Türkiye regarding scabies diagnosis and treatment.

Method: A cross-sectional survey was conducted among 160 family physicians in Türkiye. The survey included questions on demographics, clinical experience, scabies management, practices, and knowledge of scabies transmission and treatment.

Results: Permethrin cream was the most frequently reported first-line treatment (80.6%). Repeat treatment was recommended by most of the physicians (71.25). Nearly all physicians (98.12%) treated close contacts and 93.75% of the physicians provided hygiene advice. However, misconceptions existed regarding zoonotic transmission (46.25%) and unnecessary laboratory tests were sometimes requested (9.37%). Knowledge gaps were identified concerning the use of magistral preparations. The most common reason for referral to dermatologists was diagnostic uncertainty (75.6%).

Conclusion: Family physicians in Türkiye demonstrate some strengths like diagnostic success and family therapy, in scabies management, but knowledge gaps and inconsistencies exist. Educational interventions are needed to improve diagnostic accuracy, optimize treatment practices, and enhance scabies control strategies.

Keywords: scabies, family physicians, permethrin, zoonoses

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INTRODUCTION

Scabies, a highly contagious skin infestation caused by the burrowing mite Sarcoptes scabiei var. hominis, is characterized by intense itching, particularly at night. This parasitic disease spreads through direct skin-to-skin contact, including sexual activity, or by indirect contact with contaminated objects like bedding or clothing. The mite burrows into the skin, creating specific trails (burrows) alongside other nonspecific lesions like papules, vesicles, and excoriations. Common areas affected include finger webs, wrists, folds of the skin (axillary and inframammary), abdomen, buttocks, and in men, the genitals (1, 2) Subsequent to the initial infestation, there ensues an asymptomatic incubation period spanning 4 to 6 weeks, after which clinical symptoms begin to manifest (3). Female mites burrow into the skin and invade the stratum corneum, provoking a cutaneous hypersensitivity reaction in the host mediated by the mite and its secreted products. Specific and nonspecific skin lesions occur. The burrow, a linear tunnel in the skin, is the most specific and defining lesion associated with scabies. This is where the female mite resides and lays her eggs. Nonspecific lesions are papules, nodules, vesicles, eczematous changes and excoriations.Concrete evidence is crucial for scabies diagnosis. Microscopic examination reigns supreme, revealing the culprits: scabies mites (Sarcoptes scabiei), their eggs, or waste (scybala). Traditionally, a meticulous procedure involving a sharp tool and a microscope under magnification (15x loupe) was used to examine burrow contents.

Dermoscopy, a non-invasive alternative, offers a faster and potentially more sensitive approach (4). Several effective medications can tackle scabies. The most common ones include, permethrin cream (5%), oral ivermectin and benzyl benzoate lotion. Other recommended alternative treatments are Sulphur 6–33% cream, malathion lotion and topical ivermectin. Crusted scabies, a severe form, typically requires a combination of a topical medication and ivermectin tablets. Simultaneous treatment of the close contacts of all patients is crucial to prevent reinfection (2). The failure to treat close contacts can contribute to persistent or recurrent infections. Additionally, inadequate treatment regimens or poor adherence to therapy may create the illusion of emerging resistance (4).

Children, adolescents and the elderly are the age groups most susceptible to scabies. Infection rates in some areas have made scabies a major global health problem. Estimates currently suggest there are between 200 and 300 million cases worldwide (3)

Several European, Asian, and African countries reported a rise in scabies cases in recent years (4-6) . Turkish researchers also reported scabies outbreaks in various regions due to the high number of cases spread across the country (7, 8),

To raise awareness and fight for eradication, the World Health Organization designated scabies as a neglected tropical disease in 2017. This focus on scabies continued with the release of the updated WHO roadmap in 2021 (9).Prompt diagnosis and treatment of suspected cases are crucial to contain or minimize the epidemic's spread.

Since family physicians and primary care doctors are often the first point of contact for patients, their accurate diagnosis and treatment of scabies are crucial for preventing the outbreak of scabies. In our study, we conducted a survey of questions related to the diagnosis and treatment of scabies to determine family physicians' approaches to scabies diagnosis and treatment.

MATERIALS AND METHODS

This study was conducted in accordance with dictates of Helsinki Declaration and approved by the institutional ethics committee (IEC number: E.301529-2023/124). Only full-time practicing and actively patient admitting family physicians were included in the study. To determine the attitudes and behaviors of family physicians in the diagnosis and treatment of scabies, researchers developed and administered an online survey to 160 family medicine residents and specialists. The online survey was administered to family physicians using Google forms, included questions about the participants' age, professional experience, the institution and geographical area where they work, the clinical and epidemiological characteristics of patients presenting with scabies, as well as the methods they use to diagnose and treat scabies.

Statistical Analysis

The results of the study were presented as number (percentage). Descriptive data of the participant physicians were recruited using the analysis report of the Google forms.

RESULTS

The study surveyed 160 family physicians in Türkiye. The participants were diverse in age, with the largest group (41.8%) falling between 30-39 years old. Gender distribution was also balanced, with females comprising 56.25% and males 43.75%. In terms of experience, most physicians (46.8%) had been practicing for 1-9 years. The primary work setting was family health centers, where 73.1% of participants were employed. Regarding professional titles, resident physicians and family physicians (GPs) made up the largest group, accounting for nearly 80% of the participants. Geographically, the Marmara Region had the highest representation (41.8%) among the participants. These demographic characteristics provide a context for understanding the perspectives and practices of the family physicians involved in the study (Table 1).

The most prevalent first-line treatment for scabies was permethrin lotion (80.6%), followed by sulfur cream (8.1%). A smaller portion of physicians prescribed other options like magistral preparations (5%), ivermectin tablets (4.3%), or a combination of permethrin and sulfur cream (0.6%). Interestingly, nearly half of the participants (48.8%) reported prescribing magistral preparations when available, with sulfur cream being the most frequently chosen option (31.8%) and most of physicians (98.1%) endorsed family therapy, recognizing the importance of treating close contacts to prevent re-infestation. Over half (57.5%) also recommended additional control measures alongside treatment, although a significant number (42.5%) did not. Following best practices, most participants (71.2%) advised patients to return for a repeat application of scabies medication ten days after the initial treatment. Hygiene recommendations were routinely provided to patients by nearly all physicians (93.8%). (Table 2)

The vast majority (90.6%) rely on clinical presentation and history for diagnosis, a small minority (9.4%) still utilize laboratory tests, which are generally unnecessary for scabies. Encouragingly, nearly all physicians (95.0%) correctly identified gray-white tunnels as a key indicator of scabies. Nearly half of physicians (46.2%) believe scabies can be transmitted from animals (Table 3).

Table 1. Demographics of the participants.

		N (%)
Age (year)	20-29	37 (23.1%)
	30-39	67 (41.8%)
	40-49	31 (19.3%)
	50-59	25 (15.6%)
Gender	Female	90 (56.25%)
	Male	70 (43.75%)
Years of Experience	1-4	37 (23.1%)
	5-9	38 (23.75%)
	10-14	31 (19.3%)
	15-19	14 (8.75%)
	20 <	40 (25%)
Institution	University Hospital	32 (20%)
	Family Health Center	117 (73.1%)
	State Hospital	11 (6.8%)
Academic Title	Resident Physician	61 (38.1%)
	Family Physician (GP)	67 (41.8%)
	Family Physician (Resident)	31 (19.3%)
	Assistant Professor	1 (0.6%)
Geographic Region	Marmara Region	67 (41.8%)
	Aegean Region	25 (15.6%)
	Mediterranean Region	37 (23.1%)
	Black Sea Region	17 (10.6%)
	Central Anatolia Region	13 (8.1%)

Table 2. Treatment Approaches of the Participants.

		N (%)
First-line treatment options for scabies	Permethrin (5%) lotion	129 (80.6%)
	Sulphur cream	13 (8.1%)
	Magistral preparations	8 (5%)
	Ivermectin tablet	7 (4.3%)
	Permethrin + Sulphur cream	1 (0.6%)
	Topical corticosteroid	1 (0.6%)
Prescription of magistral preparations	Yes	78 (48.75%)
	No	82 (51.25%)
Which magistral preparation	Sulphur cream	51 (31.8%)
	Baume de Peru	17(10.6%)
	Benzyl benzoate	10 (6.2%)
Recommend family therapy	Yes	157 (98.12%)
	No	3 (1.88%)
Recommend control	Yes	92 (57.5%)
	No	68 (42.5%)
Recommend retreatment in ten days	Yes	114 (71,25%)
	No	46 (28.75%)
Do you provide hygiene recommendations to patients	Yes	150 (93.75)
	No	10 (6.2%)

Table 3. Distributions of the Responses of the Participants to the Survey Regarding Scabies

		N (%)
Are you recommending lab tests for scabies?	Yes	15 (9.37%)
	No	145 (90.63%)
What examination findings would you expect in a patient with scabies?	Gray-white tunnels	152 (95%)
	Reddish crusted papules	8 (5%)
Can scabies be transmitted from animals	Yes	74 (46.2%)
	No	86 (53.8%)
Do you observe seasonal variations in the distribution of scabies patients	Yes	109 (68.1%)
	No	51 (31.9%)

DISCUSSION

On a global scale, scabies causes an estimated 200 to 300 million cases of infection annually (10). Scabies remains a significant public health concern despite being a treatable condition. This persistence can be attributed to two key factors: limited public awareness and knowledge gaps among healthcare providers (10-12). Alsaidan et al reported that the scabies knowledge of primary care physicians was not adequate (11). However, our study revealed variability in healthcare providers' knowledge regarding different aspects of scabies diagnosis and treatment.

Current study revealed that family physicians possess accurate knowledge regarding certain aspects of scabies but exhibit gaps or inaccuracies in other areas. Permethrin (5%) cream is already known as the first-line treatment for scabies worldwide (13). For optimal results, a repeat application is recommended 7-14 days later. This regimen boasts cure rates exceeding 98% (13). Our study found that permethrin cream was the most prescribed first-line treatment for scabies in family medicine. Additionally, 71.25% (n=114) of physicians recommended a second treatment ten days after the initial application.

Based on our data, we propose that there is a need for increased recommendations of repeat treatments by family physicians. Close contacts of exposed staff, including family members, should also receive treatment. This is crucial because scabies can remain infectious for up to 3-6 weeks even without symptoms, allowing for transmission during this incubation period. Early treatment is most effective; delay until symptoms appear significantly increases the risk of spreading the infection to others (1). Scabies treatment failures, although documented, are often preventable. Improper application of scabicide creams and lotions, low patient adherence to treatment schedules, and omission of repeat treatments can all hinder successful eradication of the mites. Additionally, inadequate cleaning of clothes, bedding, and other potentially infested items (decontamination) allows for continued transmission. Clear and accessible instructions for patients, alongside the simultaneous treatment of close contacts, are crucial to break the cycle of infection and achieve a complete cure (4).

In our study, nearly all family physicians (98.12%) provided comprehensive care for both index cases and their contacts. Also, of the 160 physicians surveyed, 150 (93.75 %) reported advising patients on cleaning measures such as washing clothes at temperatures exceeding 60 degrees Celsius, storing non-washable items in sealed bags for a week, and ironing. However, the remaining 10 physicians indicated that they were unable to provide patients with cleaning recommendations.

A significant finding was that 74 (46.25%) of the physicians surveyed stated that scabies has the potential to be transmitted from animals to humans.

More rarely, scabies outbreaks can be traced back to contact with infected animals. This form of scabies, known as zoonotic scabies or "pseudo scabies," is generally considered to be self-resolving. It features a brief incubation period and temporary clinical signs on the skin (14).

Of the 160 physicians surveyed, 145 indicated that they did not request laboratory blood tests for patients with scabies, while 15 physicians stated that they did. We argue that unnecessary laboratory tests should be avoided in the diagnosis of scabies.

A significant portion of family physicians reported not prescribing magistral compounds for scabies. Of those physicians who prescribed magistral treatments, sulfur-containing compounds were the most frequently prescribed. We contend that there is a need to enhance their knowledge base regarding this therapeutic approach.

When family physicians were asked when they refer scabies patients to dermatologists, it was found that the most common reason for referral to a dermatologist was doubt about the diagnosis (121 doctors, 75.6%). We believe that in-service training for family physicians on the diagnosis of scabies is important for the rapid diagnosis and control of the disease.

CONCLUSION

Family physicians in Türkiye demonstrate some strengths like diagnostic success and family therapy, in scabies management, but knowledge gaps and inconsistencies exist. To effectively control scabies, comprehensive educational initiatives are essential to address knowledge gaps and optimize treatment protocols. By implementing these strategies, the overall burden of scabies can be reduced.

Ethics Committee Approval: This study was conducted in accordance with dictates of Helsinki Declaration and approved by the institutional ethics committee of Balıkesir University (IEC number: E.301529-2023/124).

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