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Original Article

Retrospective analysis of child patients diagnosed with scabies, which is frequently confused with atopic dermatitis, in the Şırnak region

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ABSTRACT

Objective: This study examined patients referred to the pediatric and pediatric allergy departments of Şırnak State Hospital with preliminary diagnoses of scabies and atopic dermatitis, who were diagnosed with scabies and underwent treatment, as well as the applied treatment and treatment responses. The aim of this study was to contribute to the literature.

Materials and Methods: Data from 77 pediatric patients aged 0–18 years who were referred to the Pediatric Allergy and Immunology and Pediatric Health and Diseases outpatient clinics of Şırnak State Hospital with a preliminary diagnosis of scabies or atopic dermatitis between May 2025 and November 2025 were retrospectively reviewed. Demographic characteristics, household size, bed sharing, nocturnal itching, family history of similar complaints, treatment adherence, treatment use by all individuals in the household, hygiene practices, and clinical treatment response were evaluated.

Results: The study included a total of 77 child patients, 29 of whom were girls (37.7%) and 48 were boys (62.3%). The youngest patient was 1 year old and the oldest was 17 years old. A total of 35.1 of the cases were treated with a diagnosis of atopic dermatitis at the initial presentation. Itching that woke the patient from sleep at night was observed in 77.9%, and a family history of similar complaints was observed in 67.5%. Bed sharing was observed in 28.6%, and dormitory living in 9.1%. The rate of patients who achieved clinical benefit from Scabies treatment was 59.7%. While no treatment success was achieved in patients who shared a bed, clinical improvement was observed in 83.6% of those who did not share a bed ($p<0.001$). Failure to use the treatment together among all individuals in the household and failure to comply with hygiene measures were significantly associated with treatment failure ($p<0.001$). In the logistic regression analysis, household size and a diagnosis of AD at the initial presentation were significantly associated with treatment failure ($B = 3.763$, $p < 0.001$ and $B = 8.477$, $p = 0.022$, respectively).

Conclusion: The most important determinants of treatment failure in children with scabies are crowded household structure, bed sharing, failure to treat all individuals in the household simultaneously, and inadequate hygiene practices. Cases confused with atopic dermatitis lead to delays in diagnosis. Early diagnosis, correct treatment, and simultaneous treatment of all contacts are critically important in controlling the disease.

Keywords: Atopic dermatitis, crowding household, early diagnosis, scabies, treatment failure

Introduction

Scabies is a common, contagious parasitic skin infection caused by the *Sarcoptes scabiei* mite (1). Over 300 million cases occur worldwide each year (2). In recent years, scabies cases have been increasing in our country and worldwide, becoming a public health problem. It is particularly more common in developing countries (3).

Transmission occurs easily through sexual contact, close contact in crowded living spaces, schools, and dormitories, either directly or indirectly through the personal belongings of infected individuals. Human-to-human transmission is easy and is most common in crowded families living in the same house and sharing the same bed. Transmission can occur even through short-term contact such as shaking hands or examining a patient. Family members and close relatives sharing a home with a scabies patient carry a high risk of infection (4). While diagnosis is often easily made through anamnesis and clinical findings, it can also present with different clinical manifestations such as atopic dermatitis, leading to cases that are difficult to diagnose later. The earlier the diagnosis is made, the less the disease spreads and the more effective treatment can be provided (5). Scabies is an infestation that can occur at any age, in any race, in

both sexes, and in any socioeconomic group (6). Diagnosis of scabies can be made based on history, severe itching, and specific clinical findings. However, auxiliary diagnostic methods can be used, especially in patients with atypical clinical findings. The most prominent symptom clinically is itching. The itching is severe enough to wake the patient from sleep at night, and insomnia is common in scabies patients. The presence of other individuals in the family who itch supports the diagnosis of scabies (7). It is necessary to make the diagnosis correctly and start treatment quickly before the disease spreads.

One of the most critical steps in the treatment of scabies is patient compliance. Incorrect or incomplete application of medication, failure to treat other individuals in the household simultaneously, and insufficient adherence to hygiene rules lead to treatment failure. In children, permethrin is most commonly used topically and washed with shampoo. It is the first treatment option in patients with uncomplicated classic scabies (8, 9).

The aim of this study was to evaluate the clinical characteristics of pediatric patients diagnosed with scabies, which is frequently confused with atopic dermatitis in the Şırnak region, to identify factors leading to diagnostic delays, and to examine sociodemographic and environmental factors affecting treatment success. Patients diagnosed with scabies and atopic dermatitis were also included in the study; it was observed that treatment was initiated late in these patients, leading to the spread of scabies and increased resistance to treatment. The study aimed to emphasize the importance of early and accurate diagnosis and early initiation of treatment.

Materials and Methods

The study was carried out in Şırnak province, located in southeastern Türkiye. Child patients aged 0-18 years who were referred to the Pediatric Allergy and Immunology and Pediatric Health and Diseases outpatient clinics of Şırnak State Hospital with a preliminary diagnosis of scabies or atopic dermatitis between May 2025 and November 2025 were included in the study. Demographic characteristics of patients, household size, bed sharing, nocturnal itching, family history of similar complaints, treatment adherence, whether all individuals in the household used the treatment, adherence to clothing and bedding hygiene, clinical benefit from scabies treatment, and cases treated for suspected atopic dermatitis at initial presentation but without response were retrospectively evaluated.

Statistical analysis

BM Statistical Package for the Social Sciences, version 31 (SPSS Inc., Armonk, NY, IBM Corp., USA) program was used for data analysis. Q-q plots, p-p plots, histograms, and the Shapiro-Wilk test were used to assess the normality of the data distribution. Categorical variables were expressed as frequency and percentage, while numerical variables were expressed as minimum, maximum, and median. The non-parametric Mann-Whitney U test was used to compare two independent groups in terms of numerical variables. Whether there was a statistically significant relationship between categorical variables was analyzed using Pearson Chi-square or Fisher's exact test. A p-value less than 0.050 was considered statistically significant. Binary logistic regression analysis was used to identify factors associated with failure to benefit from scabies treatment. The dependent variable was response to treatment, coded such that failure to benefit was the event of interest. Age, household size, and presumptive diagnosis of atopic dermatitis at first presentation were entered simultaneously into the model using the Enter method; these variables were selected a priori on clinical grounds. The categorical predictor was modelled using indicator contrasts, with absence of a presumptive atopic dermatitis diagnosis as the reference category. Model significance was assessed with the omnibus test of model coefficients, goodness of fit with the Hosmer–Lemeshow test, and explained variance with the Nagelkerke R^2; overall classification accuracy was calculated at a cut-off probability of 0.50. Results were reported as regression coefficients (B) and adjusted odds ratios with 95% confidence intervals.

Results

A total of 77 patients were included in the study. The median age of the patients was 5 years (1–17), with 62.3% being male (n=48) and 37.7% female (n=29). A total of 35.1 (n=27) of the patients had been initially treated for atopic dermatitis but had re-presented due to lack of clinical response. The median household size was 5 (3–15). When household size was categorized, 51 patients (66.2%) lived in households of 3–6 people, 22 patients (28.6%) lived in households of 7–10 people, and 4 patients (5.2%) lived in households of 11–15 people. Bed sharing was present in 28.6% of the cases, and in all of these children, at least two people shared the same bed. All demographic characteristics are given in (Table I).

The majority of cases experienced itching that woke them from sleep at night (77.9%; n=60), and similar complaints were present in family members (67.5%; n=52). Regarding treatment practices, the rate of cases where permethrin was used correctly was found to be 92.2% (n=71). The rate of patients where all individuals in the household used the medication simultaneously was 64.9% (n=50), while

Table I: Demographic characteristics of patients

Variable	Values
Number of patients	77
Age (years)*	5 (1-17)
Gender†	
Female	29 (37.7)
Male	48 (62.3)
Atopic dermatitis at first presentation†	27 (35.1)
Household size*	5 (3-15)
Bed sharing†	22 (28.6)
Attended school/nursery before infection†	23 (29.9)
Living in a dormitory†	7 (9.1)
Awakened at night by itching†	60 (77.9)
Family history of similar complaints†	52 (67.5)
Correct permethrin application†	71 (92.2)
All household members treated†	50 (64.9)
Proper clothing and bedding hygiene†	54 (70.1)
Treatment success†	46 (59.7)

**: median (min-max), †: n(%)*

Table II: The effect of living conditions on treatment response

Variable	Treatment		p
	Yes	No	
Bed sharing			
Yes	0 (0)	22 (100)	<0.001
No	46 (83.6)	9 (16.4)	
Living in a dormitory			
Yes	0 (0)	7 (100)	0.001
No	46 (65.7)	24 (34.3)	
Family history of similar complaints			
Yes	22 (42.3)	30 (57.7)	<0.001
No	20 (80)	5 (20)	
Correct permethrin application			
Yes	46 (64.8)	25(35.2)	0.003
No	0 (0)	6 (100)	
All household members treated			
Yes	46 (92)	4 (8)	<0.001
No	3(11.2)	24 (88.8)	
Proper clothing and bedding hygiene			
Yes	45 (83.3)	9 (16.7)	<0.001
No	1 (4.3)	22 (95.7)	
Age year	3 (1-13)	7 (1-17)	0.003
Household size	4 (3-7)	8 (3-15)	<0.001

**: n(%) (Chi-square test), †: min-max (Mann-Whitney U test)*

Table III: Multivariable logistic regression analysis of factors associated with failure to benefit from scabies treatment (n = 77)

Variable	B	Adjusted OR (95% CI)	p
Age, years	0.019	1.019 (0.836–1.243)	0.852
Household size, persons	1.325	3.763 (2.041–6.939)	<0.001
Presumptive diagnosis of atopic dermatitis at first presentation			
No	-	Reference	-
Yes	2.137	8.477 (1.360–52.828)	0.022

The model was statistically significant, $\chi^2(3)=66.09$, $p<0.001$, Nagelkerke $R^2=0.78$, Hosmer–Lemeshow=0.914; overall correct classification=89.6%. The dependent variable was coded as failure to benefit from treatment ("hayır"=1), odds ratios therefore express the odds of not benefiting. ***OR:*** *odds ratio,* ***CI:*** *confidence interval,* ***B :*** *unstandardised regression coefficient.*

the rate of cases where clothing and linen cleaning was performed properly was 70.1% (n=54). The rate of patients who experienced clinical benefit from scabies treatment was determined to be 59.7% (n=46) (Table I).

The presence of bed sharing and dormitory accommodation were found to be statistically significantly associated with lack of response to treatment (p<0.001 and p=0.001, respectively). The response rate was significantly lower in cases with a family history of similar complaints (p<0.001). There was a statistically significant difference between correct permethrin application, use of the medication by all individuals in the household, proper clothing and linen cleaning, and response to treatment (p<0.010 for all). The median age of the group that responded to treatment was lower, and the difference was statistically significant (p=0.003). Furthermore, the number of household members was higher in the group that did not respond to treatment, and this difference was also statistically significant (p<0.001) (Table II).

According to the logistic regression analysis results, age did not have a statistically significant effect on treatment failure (B=1.019, p=0.852). The number of household members and the number of patients diagnosed with AD at initial presentation were statistically significant in relation to treatment failure (B=3.763, p<0.001 and B=8.477, p=0.022, respectively). A one-unit increase in the number of household members increased the probability of treatment failure by approximately 3.76 times. Atopic dermatitis at first presentation was also associated with higher odds of the treatment failure (OR=8.477, 95% CI:1.360–52.828, p=0.002) (Table III).

Discussion

In our country, particularly in the Eastern and Southeastern Anatolia regions, scabies cases are frequently observed and may be resistant to treatment due to crowded household structures, the sharing of the same room or bed by multiple people, and inadequate hygiene conditions. Poverty, limited living spaces, and the necessity of living in crowded environments contribute to the rapid spread of the current scabies condition.

The patient group that is frequently confused with atopic dermatitis and therefore seeks treatment at allergy clinics was evaluated in our study. Given the increasing failure rates despite applied treatments, this study aimed to identify the reasons for treatment failure in children with scabies, including non-compliance with treatment steps, failure to make a correct diagnosis in a timely manner, and delayed initiation of treatment.

Incorrect or inadequate treatment practices are among the main causes of treatment failure and repeated health visits. Recent studies show an increase in failure rates, especially in permethrin-related treatments, for scabies (10, 11). The most common causes of failure include misdiagnosis and inadequate treatment, patient non-compliance, improper cleaning of clothing and linens, failure to treat family members simultaneously, re-infestation, and drug resistance.

In our study, 62.3% of the participants were male. As in our study, a multicenter study conducted in our country also showed a higher number of male patients (13). Children have more scabies cases than adults and are more resistant to treatment, according to studies. Reasons for this include crowded school environments, close contact with friends, and the use of shared materials (14).

Early diagnosis of scabies and prompt initiation of correct treatment and preventive measures are necessary, but this may not always be easy. One study showed that approximately 45% of patients diagnosed with scabies received incorrect diagnoses and treatment during their previous visits (15). Another study found that 43% of scabies outbreaks in hospitals were due to incorrect diagnoses such as eczema, psoriasis vulgaris, or drug eruptions. In yet another study, scabies spread in a nursing home due to the failure to diagnose it in time, and 29 out of 46 employees

developed itching and received delayed scabies treatment (16). Consistent with the literature, our findings suggest that an initial diagnosis of atopic dermatitis may be associated with a higher likelihood of treatment failure among patients subsequently diagnosed with scabies. Scabies can be confused with atopic dermatitis due to severe itching and the resulting eczematous lesions (17). In atopic dermatitis, nocturnal itching is not as severe as in scabies. The intense nocturnal itching seen in scabies is the most important complaint of patients (18). The tunnels (sillon) dug by the *Sarcoptes scabiei* mite are the most characteristic finding of scabies; this finding is not present in atopic dermatitis (19). Differentiation from atopic dermatitis is made by the presence of individuals with similar complaints in the home or dormitory, the itching increasing at night, and the lesions being different from those in atopic dermatitis locations (20). The main lesions in scabies are urticarial papules. Excoriated areas appear with severe itching of urticarial papules. In infants and young children, the palms, soles of the feet, face, neck, and scalp are frequently affected areas (1,21). In our study, 27 (35.1%) of the patients had previously been treated for atopic dermatitis, but were later diagnosed with scabies during outpatient checkups, and treatment for scabies was started late. The importance of accurate diagnosis and early initiation of treatment is evident here. Because the later the diagnosis of scabies is made, the greater the contagiousness and resistance to treatment, and the more difficult the treatment becomes.

Large household sizes and children sharing beds are factors that facilitate transmission and increase resistance to treatment. Şırnak is a region where crowded living conditions prevail in homes. In the study, the minimum household size was 3 and the maximum was 15, and 28.6% of the children shared beds. At least two people slept in one bed. In this study, households without bed sharing benefited significantly more from scabies treatment compared to those with bed sharing ($p<0.001$). A total of 22 children who shared beds showed no response to treatment. Furthermore, when considering the number of people in the household, this variable was found to be statistically significant ($p<0.001$). A one-unit increase in the number of people in the household increased the probability of the dependent variable occurring by approximately 3.46 times. Therefore, it was hypothesized that as the number of people living in the house increases, participation in treatment and the correct application of treatment become more difficult. It was observed that crowded living conditions increased the incidence of the disease while decreasing the response to treatment. When we questioned the living conditions and transmission risk of the patients in our study, the number of people in the households was high. Most patients lived in relatively large households, supporting the importance of crowded living conditions in the transmission and management of scabies. Large family structures are among the most important factors affecting treatment failure. The most frequent reasons for this are decreased hygiene as the number of people in the family increases, increased sharing of rooms and beds, difficulties in ensuring that everyone in the house applies the treatment correctly and completely, and crowded family environments due to increased treatment costs, which are the main factors in making scabies treatment difficult and increasing the incidence of scabies (22). In a study by Karim et al.,(23) sharing clothing and beds was found to be significant risk factors for transmission. In our study, it was also observed that bed sharing increased among patients as the number of people in the household increased. Large family structures were considered as factors affecting treatment failure. The difficulty of persuading everyone in the family to undergo treatment, the difficulty of everyone applying the treatment correctly at the same time, and more frequent reinfestation within the family can be considered as factors causing this.

The risk of scabies transmission is higher among people sharing the same living space. When considering their living conditions, 7 of the patients living in dormitories did not benefit from treatment, which was statistically significant ($p<0.001$). When the patients were questioned, it was learned that other people in the dormitory also experienced itching. The reasons for the lack of response to treatment were thought to be incorrect and incomplete application of treatment, lack of adherence to hygiene recommendations, and the fact that other people in the dormitory had not received treatment. This group lived in a more crowded environment and shared items were more common. In a scabies study conducted in a school in Ethiopia, sharing clothes and beds or contact with other common areas was found to be a statistically significant factor (24). In 52 families (67.5%) living in the same house, similar complaints were observed.

In our study, 64.9% of the patients (50 families) had all the medication used. A totl of 92% (46) of these 50 families benefited from scabies treatment; only 4 families did not. Of the 27 families where only the child with itching used the medication but the rest of the household did not, 88.8% (24 families) did not benefit from the treatment. One factor contributing to treatment failure is that the treatment is not used by everyone in the household or living space. It is wrong to treat individuals with itching while excluding those without itching.

In scabies, it is extremely important that everyone in the family living in the same house is treated (25). This highlights the importance of all individuals living in the same living space taking medication. When informing families, it should be explained that everyone living in the house must receive the treatment and its importance should be emphasized. When a prescription is written for a child, medication must also be prescribed for other members of the family. The medication prescribed for the child should not be divided among the family. Furthermore, the inability to prescribe enough cream for the whole family based on a single person leads to insufficient cream application, and the increased treatment cost is a significant obstacle. Crowded living conditions and households are one of the most fundamental factors in the increase of scabies (22).

Whether patients properly clean their clothes and linens throughout the house is important in terms of transmission and treatment resistance. Washing linens and all clothing at the appropriate temperature is extremely important. In our patients, 70.1% (54) did this correctly. A study showed that improper cleaning of bedding and sheets was significantly associated with treatment failure (25). In terms of cleanliness, 23 patients (29.9%) did not comply with rules such as washing clothes at the appropriate temperature and washing and changing bed linens at the appropriate temperature and frequency. We believe that hygiene recommendations

will increase treatment success. In developing countries, especially where access to water is limited, poor personal hygiene and infrequent washing and changing of clothes may be contributing factors. A total of 70.1% of patients cleaned their clothes and sheets correctly. While 83.3% of patients who did this correctly benefited from the treatment, 95.7% of patients who did not do it correctly did not respond to the treatment, which was statistically significant ($p<0.001$).

In scabies, itching that worsens at night while in bed is a typical symptom, although not specific. This itching is very severe and bothersome, preventing the patient from sleeping (8). In our study, 77.9% of patients had itching that woke them from sleep at night. A similar complaint was present in 52 out of 77 patients (67.5%). Of the patients with a similar complaint in their family, 42.3% benefited from treatment, while 57.7% did not. Of the 25 patients without a similar complaint, 80% benefited from treatment, which was statistically significant ($p<0.001$). In a study by Oba et al. (26), similar to our study, a family history of itching was statistically significant in the treatment failure group, and it was emphasized that scabies patients should be treated before other family members become infected. In young children, scabies spreads easily within the family due to the frequency of close contact. Therefore, accurate diagnosis and prompt treatment are important.

Although 71 patients (92.2%) applied permethrin correctly, only 46 patients (59.7%) showed a treatment response. All 6 patients who did not apply it correctly were unresponsive to treatment. This was statistically significant ($p=0.003$). Possible reasons for this include large households and the fact that not all individuals received treatment, multiple people sharing the same bed, improper cleaning of clothing and linens, failure to make an early diagnosis, and delays in initiating treatment. A 2024 study on scabies treatment failure listed factors associated with treatment failure as low-dose and short-term treatment, severity of scabies, incorrect treatment application, failure to treat contacts within the household, and delayed initiation of treatment (27).

Limitations

This study has some limitations. Its retrospective and single-center design may limit the generalizability of the findings. In addition, the relatively small sample size may have affected the precision of some statistical estimates. Information on treatment practices, household contact treatment, bed sharing, and hygiene measures was based on medical records and family reports. Nevertheless, the study provides clinically relevant data on factors associated with treatment response in children with scabies in a region where crowded living conditions are common. Further prospective multicenter studies with larger patient groups may help confirm these findings.

Conclusion

In conclusion, effective management of scabies in children requires early diagnosis, correct treatment, simultaneous treatment of all individuals in the household, and strict adherence to hygiene measures. Increasing awareness among healthcare professionals regarding scabies and its differential diagnosis is critical in reducing disease spread and the development of treatment resistance.

Ethics committee approval

This study was conducted in accordance with the Helsinki Declaration Principles. The study was approved by Şırnak University (13.01.2026, reference number: E-74546226-051-156917).

Contribution of the authors

Study conception and design: MO, MO; data collection: MO; analysis and interpretation of results: MO,CB; draft manuscript preparation: MO,CB. All authors reviewed the results and approved the final version of the article.

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Conflict of interest

The authors declare that there is no conflict of interest.

References

1. Hengge UR, Currie BJ, Jäger G, Lupi O, Schwartz RA. Scabies: a ubiquitous neglected skin disease. Lancet Infect Dis. 2006;6(12):769-79. https://doi.org/10.1016/S1473-3099(06)70654-5
2. Anderson KL, Strowd LC. Epidemiology, Diagnosis, and Treatment of Scabies in a Dermatology Office. J Am Board Fam Med. 2017;30(1):78-84. https://doi.org/10.3122/jabfm.2017.01.160190
3. Ständer S, Ständer S. Itch in Scabies-What Do We Know? Front Med (Lausanne). 2021;8:628392. https://doi.org/10.3389/fmed.2021.628392
4. Burgess I. Sarcoptes scabiei and scabies. Adv Parasitol. 1994;33:235-92. https://doi.org/10.1016/S0065-308X(08)60414-5
5. Cassell JA, Middleton J, Nalabanda A, Lanza S, Head MG, Bostock J, et al. Scabies outbreaks in ten care homes for elderly people: a prospective study of clinical features, epidemiology, and treatment outcomes. Lancet Infect Dis. 2018;18(8):894-902. https://doi.org/10.1016/S1473-3099(18)30347-5
6. Aždajić MD, Bešlić I, Gašić A, Ferara N, Pedić L, Lugović-Mihić L. Increased Scabies Incidence at the Beginning of the 21st Century: What Do Reports from Europe and the World Show? Life (Basel). 2022;12(10). https://doi.org/10.3390/life12101598
7. Orion E, Matz H, Wolf R. Ectoparasitic sexually transmitted diseases: scabies and pediculosis. Clin Dermatol. 2004;22(6):513-9. https://doi.org/10.1016/j.clindermatol.2004.07.004
8. Sunderkötter C, Feldmeier H, Fölster-Holst R, Geisel B, Klinke-Rehbein S, Nast A, et al. S1 guidelines on the diagnosis and treatment of scabies short version. J Dtsch Dermatol Ges. 2016;14(11):1155-67. https://doi.org/10.1111/ddg.13130
9. Salavastru CM, Chosidow O, Boffa MJ, Janier M, Tiplica GS. European guideline for the management of scabies. J Eur Acad Dermatol Venereol. 2017;31(8):1248-53. https://doi.org/10.1111/jdv.14351
10. Mazzatenta C, Piccolo V, Argenziano G, Bassi A. Is Scabies becoming less sensitive to permethrin therapy? J Eur Acad Dermatol Venereol. 2021;35(9):e607-e9. https://doi.org/10.1111/jdv.17339
11. Bassi A, Piccolo V, Argenziano G, Mazzatenta C. Topical ivermectin: an off-label alternative to treat neonatal Scabies in the era of permethrin resistance. J Eur Acad Dermatol Venereol. 2022;36(7):e557-e9. https://doi.org/10.1111/jdv.18026
12. Veraldi S, Schianchi R, Silvio M, Aromolo IF. Pseudoresistance to permethrin in scabies. J Infect Dev Ctries. 2023;17(5):713-5. https://doi.org/10.3855/jidc.17750

13. Özden MG, Ertürk K, Kartal SP, Yayli S, Göktay F, Doğramacı CA, et al. An extraordinary outbreak of scabies in Turkey. J Eur Acad Dermatol Venereol. 2020;34(12):e818-e20. https://doi.org/10.1111/jdv.16699
14. Ariza L, Walter B, Worth C, Brockmann S, Weber ML, Feldmeier H. Investigation of a scabies outbreak in a kindergarten in Constance, Germany. Eur J Clin Microbiol Infect Dis. 2013;32(3):373-80. https://doi.org/10.1007/s10096-012-1752-1
15. Lifschitz C. The impact of atopic dermatitis on quality of life. Ann Nutr Metab. 2015;66 Suppl 1:34-40. https://doi.org/10.1159/000370226
16. Mounsey KE, Murray HC, King M, Oprescu F. Retrospective analysis of institutional scabies outbreaks from 1984 to 2013: lessons learned and moving forward. Epidemiol Infect. 2016;144(11):2462-71. https://doi.org/10.1017/S0950268816000443
17. Schmitt J, von Kobyletzki L, Svensson A, Apfelbacher C. Efficacy and tolerability of proactive treatment with topical corticosteroids and calcineurin inhibitors for atopic eczema: systematic review and meta-analysis of randomized controlled trials. Br J Dermatol. 2011;164(2):415-28. https://doi.org/10.1111/j.1365-2133.2010.10030.x
18. Thaçi D, Reitamo S, Gonzalez Ensenat MA, Moss C, Boccaletti V, Cainelli T, et al. Proactive disease management with 0.03% tacrolimus ointment for children with atopic dermatitis: results of a randomized, multicentre, comparative study. Br J Dermatol. 2008;159(6):1348-56. https://doi.org/10.1111/j.1365-2133.2008.08813.x
19. Wollenberg A, Frank R, Kroth J, Ruzicka T. Proactive therapy of atopic eczema--an evidence-based concept with a behavioral background. J Dtsch Dermatol Ges. 2009;7(2):117-21. https://doi.org/10.1111/j.1610-0387.2008.06772.x
20. Eichenfield LF, Tom WL, Chamlin SL, Feldman SR, Hanifin JM, Simpson EL, et al. Guidelines of care for the management of atopic dermatitis: section 1. Diagnosis and assessment of atopic dermatitis. J Am Acad Dermatol. 2014;70(2):338-51. https://doi.org/10.1016/j.jaad.2013.10.010
21. Chandler DJ, Fuller LC. A Review of Scabies: An Infestation More than Skin Deep. Dermatology. 2019;235(2):79-90. https://doi.org/10.1159/000495290
22. Bernigaud C, Fischer K, Chosidow O. The Management of Scabies in the 21st Century: Past, Advances and Potentials. Acta Derm Venereol. 2020;100(9):adv00112. https://doi.org/10.2340/00015555-3468
23. Karim SA, Anwar KS, Khan MA, Mollah MA, Nahar N, Rahman HE, et al. Socio-demographic characteristics of children infested with scabies in densely populated communities of residential madrashas (Islamic education institutes) in Dhaka, Bangladesh. Public Health. 2007;121(12):923-34. https://doi.org/10.1016/j.puhe.2006.10.019
24. Ejigu K, Haji Y, Toma A, Tadesse BT. Factors associated with scabies outbreaks in primary schools in Ethiopia: a case-control study. Res Rep Trop Med. 2019;10:119-27. https://doi.org/10.2147/RRTM.S214724
25. Leistner R, Buchwald D, Beyer M, Philipp S. Scabies outbreak among healthcare workers in a German acute care hospital. J Infect Prev. 2017;18(4):189-92. https://doi.org/10.1177/1757177417690920
26. Oba MC, Ozkoca D, Basara Sahin R, Kazan DS, Guldiken G, Kara Esen B. Factors Affecting Topical Treatment Success in Pediatric Scabies Cases: A Cross-Sectional Study. Dermatol Pract Concept. 2023;13(4). https://doi.org/10.5826/dpc.1304a307
27. Mbuagbaw L, Sadeghirad B, Morgan RL, Mertz D, Motaghi S, Ghadimi M, et al. Failure of scabies treatment: a systematic review and meta-analysis. Br J Dermatol. 2024;190(2):163-73. https://doi.org/10.1093/bjd/ljad308