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Approach to Scabies in Primary Health Care

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ABSTRACT

Scabies is a skin infection caused by a parasite called *Sarcoptes scabiei*. Scabies is a type of infection that spreads through contact. This infection can be transmitted from person to person by contact, through sexual contact, or from infected items and surfaces. Scabies mites live and breed in tunnels on the skin surface. The infection occurs within a few weeks, with itching and other skin manifestations. Scabies is usually more prominent in the folded areas of the skin, especially in areas such as the wrists, between the fingers, elbows, back of the knees and waist. If scabies infection is not treated, it can cause more serious skin problems and infections can lead to public health problems.

Keywords: Scabies, primary care physicians, family practice

ÖZET

Uyuz, *Sarcoptes scabiei* adlı bir parazitin neden olduğu bir deri enfeksiyonudur. Enfeksiyon ciltte şiddetli kaşıntı, kızarıklık, kızarıklık ve kabarcıklarla kendini gösterir. Uyuz, temas yoluyla bulaşan bir enfeksiyon türüdür. Bu enfeksiyon kişiden kişiye temas yoluyla, cinsel temas yoluyla veya enfekte olmuş eşya ve yüzeylerden bulaşabilir. Uyuz akarları cilt yüzeyindeki tünellerde yaşar ve ürerler. Enfeksiyon, kaşıntı ve diğer cilt belirtileri ile birkaç hafta içinde ortaya çıkar. Uyuzlar genellikle cildin kıvrımlı bölgelerinde, özellikle bilekler, parmak araları, dirsekler, diz arkası ve bel gibi bölgelerde daha belirgindir. Uyuz enfeksiyonu tedavi edilmezse daha ciddi cilt sorunlarına neden olabilir ve enfeksiyonlar halk sağlığı sorunlarına yol açabilir.

Anahtar kelimeler: Uyuz, birinci basamak hekimleri, aile hekimliği

Diagnosis of Scabies

The diagnosis of scabies can be made by a dermatologist or primary care physician. The diagnosis of scabies is usually made by patient history, physical examination, and laboratory tests from the skin scraping of the scabies mite. First, information about the symptoms such as when the symptoms started, the severity of the symptoms, where and how often the itching is felt is obtained. In addition, the patient's personal and family history is also evaluated. The skin and typical symptoms of scabies (small red lesions, blisters, tracts/tunnel etc.) are examined. Scabies symptoms are especially concentrated in certain areas such as between the fingers, wrists, belly, chest, elbows, and knees. The diagnosis of scabies is usually supported by a laboratory test with a skin swab. The skin swab is examined under a microscope to see the scabies mites and their eggs. However, it is also known that these tests can give misleading results. The diagnosis of scabies is made by the development of symptoms and swab tests. It is important to make an accurate diagnosis before starting treatment because the symptoms of scabies can be confused with other skin conditions¹⁻⁴.

The diagnosis of scabies is made by observing the tunnels on the skin. However, if not looked carefully, the tunnel view can be overlooked. Scabies mites move by making tunnels in the epidermis layer. Tunnels can be dark or white in color and sometimes the mites themselves can be seen. These tunnels may be more prominent, especially in areas where scabies is most common, such as the wrists, between the fingers, elbows, back of the knees and waist. Scabies tunnels are usually small and thin, about 2 mm in diameter. The tunnels move through the skin in the form of a cross. The presence of scabies tunnels is evaluated together with other symptoms of scabies and the diagnosis of scabies is made³⁻⁵.



Scabies Treatment

It is known that the treatment of scabies is usually successful, and its symptoms subside within 1-2 weeks. The rate of response to treatment may depend on factors such as the age of the person being treated, health status, severity of infection and adherence to treatment. However, resistant cases of scabies are infections caused by scabies mites that are resistant to treatment, and treatment success rates may be lower. Therefore, treatment of resistant scabies may take longer and require more aggressive treatments under the supervision of a dermatologist^{1,3}.

Scabies treatment is done with creams or lotions on the skin where the scabies mite is located in the epidermis layer. Itching starts 2-6 weeks after ingestion of the parasite and itching may continue for up to 2 months after treatment. For this reason, it should be ensured that the patient and his family or people with skin contact should be treated at the same time after diagnosis. Topical medications containing permethrin or ivermectin are generally used in the treatment of scabies. Medicines are applied to the entire surface of the skin, especially to areas where typical scabies lesions are present, such as between the fingers, wrists, navel, chest, elbows, and knees. The effectiveness of the treatment depends on the dose of the drug administered, the duration of administration and the severity of the patient's infection. Permethrin is the most used drug in the topical treatment of scabies, and it shows its effect by affecting the nervous system of mites. Within a few weeks after the application, the scabies mites die, and the symptoms begin to decrease. The drug can be applied 1-2 times with an interval of a week. Permethrin 5% cream should be applied from head to toe and washed off after 8-12 hours. Ivermectin is a drug used for the systemic treatment of scabies. Ivermectin should be taken orally (with food) in two doses of 200 µg/kg 7 days apart. This drug kills the mites by affecting their nervous system. Ivermectin is used in the most severe cases of scabies or in patients who do not respond to other treatments. However, its use is contraindicated in some people, such as pregnant women, nursing mothers, and those with severe liver disease. Post-treatment symptoms usually begin to subside within a few days. Patients should pay attention to hygiene rules to prevent re-infection after treatment⁵⁻⁸.

Treatment of resistant scabies is a treatment method applied to patients who have developed resistance to standard drugs used for the treatment of scabies. In this case, the scabies mites and their eggs have become more resistant to drugs. Treatment of resistant scabies can be done with different approaches such as drug combinations or alternative treatments. For example, it is recommended to use different drugs together against drug resistance. This approach combines the different working mechanisms of different drugs, providing a more effective fight against scabies mites and their eggs. In some cases, it may be necessary to increase the dose of drugs used in standard treatment protocols. This provides a higher drug concentration to the scabies mites, enabling a more effective fight against drug resistance. There are also some alternative treatments used to treat scabies. For example, methods such as moisturizing creams, herbal treatments and ozone therapy can be tried. However, there is insufficient scientific evidence about the effectiveness of these alternative treatments, and they are not recommended by experts. Treatment of resistant scabies is usually managed by a dermatologist or infectious disease specialist. These professionals consider the patient's symptoms, skin scrapings, and drug allergies to determine an appropriate treatment protocol. Completion of treatment is extremely important in terms of adherence to treatment and preventing re-infection. If skin infection is added to scabies lesions, antibiotic ointments should be added to the treatment^{1,5-8}.

After diagnosing a suspected case for scabies, the family physician may refer the patient to a dermatologist before starting treatment. However, if it is difficult to reach the dermatologist, the family doctor can initiate the appropriate treatment. The family doctor can write a prescription for the standard treatment of scabies. This treatment usually includes a prescription cream or lotion to kill the scabies mites and their eggs on specific areas of the skin. The family physician can determine an appropriate treatment method according to the patient's health status, age, and sensitivity to drugs. For the treatment to be effective, the family doctor must ensure that the patient adheres to the treatment and uses the medication in accordance with the instructions. In addition, the family doctor may recommend some precautions to prevent the transmission

of scabies to the patient. For example: The patient should change his bed and clothes frequently, wash his used clothes and not share his clothes with other people. The clothes should be boiled, and the clothes that cannot be boiled should be kept in a non-perforated bag for 1 week. The patient should not scratch the scabby areas and should moisturize the skin with moisturizing creams. The patient should avoid close contact with other people and avoid all skin contact, including touching, hugging and sexual contact. The family doctor may also arrange a follow-up visit to make sure that the scabies mites are completely dead, to prevent the patient from becoming reinfected after treatment^{6,8}.

Scabies outbreaks must be dealt with quickly to prevent the spread of infection. The following steps can give an idea about the path to be followed in scabies outbreaks. Once scabies is diagnosed, it becomes difficult to prevent the infection from spreading if left untreated. Therefore, it is important to be diagnosed quickly in the event of a scabies outbreak. Provide isolation: Infected persons should be isolated to prevent the spread of the scabies epidemic. In this way, other people are prevented from catching the disease. Medicines used to treat scabies kill the scabies mites and thus prevent the spread of the infection. During the epidemic, health services should be provided quickly to facilitate access to scabies treatment. Items and surfaces used by infected people should be cleaned and disinfected regularly. In this way, the scabies mites are destroyed, and the spread of the infection is prevented. During the scabies epidemic, regular public awareness activities should be carried out. In this way, awareness about scabies can be raised and information can be given about preventive measures to prevent the spread of infection. Healthcare workers have a critical role in the management of scabies outbreaks. Therefore, it is important that they receive training in managing outbreaks of scabies and provide appropriate treatment and preventive measures. When scabies outbreaks are handled quickly, the spread of infection can be prevented and serious health problems can be prevented^{1,2,5}.

Conclusion

To prevent the epidemic of scabies, primary health care services should take the necessary measures for public health. It is important that patients with suspected scabies outbreak are diagnosed and treated as soon as possible. This can prevent or limit the spread of the epidemic. Scabies mites are a parasite that can be easily transmitted from humans and spread more easily, especially in unhygienic conditions. Therefore, health institutions should pay attention to cleaning measures and frequently change bed linen, towels and clothes of patients with scabies. Appropriate isolation measures should be taken to prevent people with scabies from meeting other patients. This includes keeping people with scabies in separate room and healthcare personnel using appropriate protective equipment. Informing patients and their families about the scabies epidemic can help prevent the spread of the epidemic. This may include providing information about the signs and symptoms of scabies, emphasizing the importance of hygiene and sanitation measures, and instructions on isolating patients with scabies. Hygienic measures include frequent hand washing, not sharing personal items (for example, towels, bed linen, and clothing), bathing, and trimming nails. Healthcare personnel and other persons should take appropriate preventive measures to avoid an outbreak of scabies. This may include the use of appropriate protective equipment. Controlling scabies outbreaks may include monitoring and treatment of patients, screening of contacts, and taking appropriate action. In this process, health personnel should cooperate with local health authorities. These measures can be effective in preventing and controlling scabies outbreaks. However, to prevent the spread of scabies, the society, in addition to health institutions, should adopt hygienic living conditions and pay attention to their personal hygiene (Figure 1).



Figure 1. 4 Main components to be done to prevent the Scabies Outbreak.

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