

AN ATTRIBUTE KNOWLEDGE ON SCABIES

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Article Received on: 26/03/2024

Article Revised on: 16/04/2024

Article Accepted on: 06/05/2024



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ABSTRACT

A mite infestation leads to the skin disorder known as scabies, which is highly contagious. Burrowing under the skin, the *Sarcoptes scabiei* mite produces excruciating itching. This itching is constant, particularly at night. Africa, South America, Australia, and Southeast Asia are the continents where scabies is most common. It include the following types Crusted scabies and atypical scabies. severe itching that may be difficult to fall asleep and is worse at night. sores or uncomfortable lumps that can occasionally get infected from scratches and traces or lumps from burrowing that resemble raised, skin-colored lines are the major clinical-features. It can be diagnosed through skin scrapings, dermatoscopy and videodermatoscopy. Scabies can be treated in a number of ways. systemic ivermectin, topical crotamiton, topical permethrin, Topical lindane, 5% precipitated sulfur, malathion, and topical ivermectin are more alternatives.

KEYWORDS: Scabies, *sarcoptes scabiei*, dermatoscopy, videodermatoscopy, wake-up-sign and kite sign.

INTRODUCTION

A mite infestation leads to the skin disorder known as scabies, which is highly contagious. Burrowing under the skin, the *Sarcoptes scabiei* mite produces excruciating itching. This itching is constant, particularly at night. Family members and intimate skin-to-skin relationships provide the greatest danger because skin-to-skin contact is how the infectious organism is spread. The World Health Organization (WHO) designated scabies as a neglected skin disease in 2009, and it remains a serious health issue in many underdeveloped nations.^[1] Skin-related indications and symptoms stem from an overreaction to mite antigens. Patients arrive with excruciatingly itchy eruptions that impair quality of life and cause sleep disturbances. Due to the wide range of presentations and the recent development of diagnostic criteria, diagnosis might be difficult.^[2]

ETIOLOGY

The scabies mite that infects people, *Sarcoptes scabiei* var *hominis*, is an obligatory human parasite with a creamy white hue. The first records of scabies date back to 482 BC in Egypt, even though the mite was only found in 1687. The three subfamilies of the Sarcoptidae family include the scabies mite. *Sarcoptes* is a member of the subfamily Sarcoptinae. The female mite is smaller than the male, measuring 0.4 × 0.3 mm. The larval form of the mite has three pairs of legs, whereas the adult form has four pairs.^[2]

EPIDEMIOLOGY

Africa, South America, Australia, and Southeast Asia are the continents where scabies is most common. There is a strong correlation between the high prevalence and homelessness, poor nutrition, poverty, and poor hygiene. Children and young adults are more likely to experience it. In developed nations, outbreaks of scabies can happen occasionally or as institutional outbreaks in places like nursing homes, hospitals, jails, retirement communities, schools, and places with high population density.^[1]

TYPES OF SCABIES

It includes the following types

1. Crusted scabies
2. Atypical scabies
 - a) Infantile scabies
 - b) Nodular scabies
 - c) Animal scabies
 - e) Genital scabies.

1. Crusted scabies

Norwegian scabies is another name for it (first found in Norway). It is the most extreme variation. Because scratching is a protective phenomenon, this happens to patients who are unable to scratch. It mostly affects patients who have Neurological conditions Syndrome Downward Additionally, HIV individuals who are immunocompromised experience it. Elderly individuals.

Burrows will accumulate because these patients will not scrape. As a result, heaping crusts—known as crusted scabies—will form. Millions of mites are present under these circumstances (Severe Scabies). Epidemics in institutions are caused by it. Hospitals admitted these patients. Drugs taken orally and topically are used to treat them.

2. Atypical scabies

a) Infantile scabies

Infants are impacted by this kind of scabies. Face, palms, and soles are the affected regions. Additionally, vesicles develop. Infants are impacted by this kind of scabies. Face, palms, and soles are the affected regions. Since the baby cannot scratch, vesicles also form. Adults do not exhibit engagement of these regions. Cream is applied locally to the face as part of the treatment.

b) Nodular scabies

The vaginal and axillary regions develop nodules. Delay-type hypersensitivity reaction is the outcome of this.

c) Animal scabies

Burrows are not seen in this kind of scabies.

d) Genital scabies

The patient is presenting with genital signs of scabies. Both children and adults should get STIs diagnosed.^[3]

CLINICAL-FEATURES

- A) Severe itching that may be difficult to fall asleep and is worse at night.
- B) Sores or uncomfortable lumps that can occasionally get infected from scratches.
- C) Traces or lumps from burrowing that resemble raised, skin-colored lines.

Scabies-affected children may be itchy all over their body and may be grumpy or exhausted from sleeping through the night.^[4,5,6]

Where do scabies mite live on our body

1. Creases the space between your toes and fingertips.
2. Creases in your vaginal area and thighs.
3. Bends at the knees and wrists.
4. The region surrounding your waist.
5. Beneath the nails.
6. Under bracelets, watch bands, and rings.
7. The vicinity of your nipples.^[4]

PATHOLOGY

Within the outermost layers of the epidermis, adult female mites excavate tunnels that range in length from 1 to 10 millimeters and deposit two to three eggs every day. The eggs hatch after about two to three weeks, and the mites die 30 to 60 days later. It is important to note that not all forms of treatment are able to reach the eggs that are kept under the skin.

In the event of an infestation, papules can appear in two to five weeks. These papules range in length from a few millimeters to one centimeter, and they have a tunnel or comma shape. Usually, infestations happen beneath thin skin in places like the men's penis shaft, areolae, navel region, and interdigital folds.^[1]

DIAGNOSIS

Verifying the diagnosis requires looking for mites, eggs, or fecal remnants. A skin scrape from a papule or a tunnel can be studied under a microscope for this purpose. Using a scalpel, an average of five questionable lesions are scraped, and then mineral oil is applied.

After the scraping material is put on the slide, a lamella is placed over it. It is considered as diagnostic to look at the mite under a microscope at any stage. This procedure is difficult so, the dermatologists use dermatoscopy.

Dermatoscopy's sensitivity and specificity are 98.3% and 88.5%, respectively, allowing for the identification of the "wake-up sign" and the "kite sign." However, dermatoscopy, which allows for a rapid and straightforward diagnosis, cannot identify whether a mite is alive or not. Videodermatoscopy may be used to determine whether or not a mite is living. The only methods used to diagnose clinical or suspected scabies are the patient's medical history and physical examination.

A. Scabies that has been proven (at least one of the following)

1. Under a light microscope, visible mites, eggs, or feces from skin samples
2. Using a high-power imaging tool to see mites, eggs, or excrement
3. Using dermoscopy to view the mite.

B. Clinical scabies (any or all of the subsequent conditions)

1. Tunnels for scabies
2. Typical genital lesions in men
3. Normal distribution, lesions, and two characteristics of the past.

C. Scabies Suspected (Any of the Following)

1. Typical lesions, distribution, and one historical characteristic
2. Two historical traits, an abnormal distribution, and an atypical lesions

Historical aspects

H1. Itchy Historical aspects

H2. a favorable contact history

The A, B, or C values are used to make the diagnosis. When making clinical and suspected scabies diagnosis, one should take into account the instances in which differential diagnoses are less likely than scabies.^[1,4,7]

TREATMENT

Scabies can be treated in a number of ways. Research indicates that traditional treatment options are equally effective when used as prescribed. These consist of systemic ivermectin, topical crotamiton, and topical permethrin. These drugs seldom cause adverse responses.

Topical permethrin 5% cream is a commonly used and effective product. Usually, the cream is administered once every week for a total of two treatments throughout that time. Nevertheless, infrequent allergic responses, poor patient compliance, and scabies resistance are infrequently linked to this treatment.

Although the US Food and Drug Administration has not approved its usage for treating scabies, oral ivermectin is an additional option. It is given once to those who are ten years of age and older. If symptoms don't go away after two weeks, another dose is administered. Ivermectin is scabistatic when administered in two doses; the second treatment eliminates mites that have hatched after the first treatment. Because of its safety, favorable side effect profile, ease of administration, and convenience, oral ivermectin is advised. Compared to topical permethrin, this treatment modality has greater rates of compliance. Additionally, the pill form of ivermectin minimizes the possibility of misuse or insufficient application, as can happen with topical permethrin. When treating scabies outbreaks, topical permethrin is not as effective as systemic ivermectin. Ensuring proper care is particularly important when it comes to the care of people who live close by, as in jails, homeless shelters, and medical facilities.

Topical lindane, 5% precipitated sulfur, malathion, and topical ivermectin are more alternatives.

Those who are resistant to *S. scabiei* may have fewer treatment options, or there may be restrictions because of availability, cost, or possible toxicity, particularly for young patients and expectant mothers.

Isolating the cause can help prevent future infection and reduce outbreaks in communities, even though treatment failure and recurrence are common. Failure to treat close contacts at the same time, to decontaminate clothing and bedding during treatment, and noncompliance with the prescribed course of action are all contributing factors to treatment failure. Ivermectin-resistant *Sarcoptes* mites may be the cause of treatment failure for crusted scabies. The suggested treatment for known ivermectin resistance is moxidectin.^[1,8,9]

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