



Prevalence of Wet Scabies (*Jarb*) -A Review Article

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Abstract

Scabies is a contagious skin disease, caused by *Sarcoptes scabiei* which affects around 300 million populations every year globally affecting mostly the children; but can occur in any age group and the incidence is similar in both sexes. Scabies remains one of the commonest of skin diseases seen in developing countries. Although its distribution is subject to a cycle of infection, with peaks and troughs of disease prevalence, this periodicity is often less obvious in poor communities. Scabies is a condition that affects families, particularly the most vulnerable; it also has the greatest impact on young children. Largely through the association with secondary bacterial infection caused by group A streptococci and *Staphylococcus aureus*, the burden of disease is compounded by nephritis, rheumatic fever and sepsis in developing countries. However, with a few notable exceptions, it remains largely neglected as an important public health problem. To control scabies various herbs and precaution used. In this literature author describe about the prevention and management of Scabies.

Key word: Jarb, Scabies; Prevention and Management; Risk of Scabies, Herbal Drugs

I. Introduction of Scabies (*Jarb*)

The name *Sarcoptes scabiei* is derived from the Greek word “sarx” (flesh) and “koptein” (to smite or to cut) and the Latin word “scabere” (to scratch). Scabies is an obligate ectoparasitic mite that cause mange in more than 100 mammalian species belonging to 27 families. The classic presentation of scabies include skin eruption consisting of papules, nodules, vesicles and generalized pruritus that is typically worse at night [1, 2]. Scabies mite is barely visible to naked eye, mostly found in the burrows located at specific areas such as in the finger web, flexure of wrist, elbow, arm pits, on genitals and breast. However, their number is least in the area with a high density of pilosebaceous follicles [3]. Scabies is contagious which spread through person to person contact. However, mite can only survive for 24–36 h off host, thus infection is limited through fomites, such as clothing and bed lining [4]. Adult mites use odour and thermotaxis to identify a new host [5]. Scabies is often confused with other pruritic rashes such as eczema, impetigo, *Tinea corporis* (ringworm) and psoriasis [6].

Scabies is universal throughout the world infesting around 300 million people each year.¹ It is endemic in many tropical and subtropical areas.² In India, the incidence in any Dermatology outpatient clinic varies from 10 to 30% of all cases with a seasonal prevalence and higher incidence in months of the winter season.³

Jarb (Scabies) is a well-known dermatological disorder since Greco-Arabic period characterized by itching and eruptions. Ancient Unani scholars like Rabban Al Tabri, Sabit bin Qurah, Razi, Majoosi, Ibne Sina and others has mentioned the detailed description of Jarb in their treaties. The famous Arab physician Ahmad bin Mohammad Tabri firstly described Deedan-e-Jarb (scabies mite) as the actual pathogenic organism of Jarb which resembles Sannan (teeth). These organisms travel from one eruption to another leaving behind minute line till the energy in organism lasts.^{4, 5}

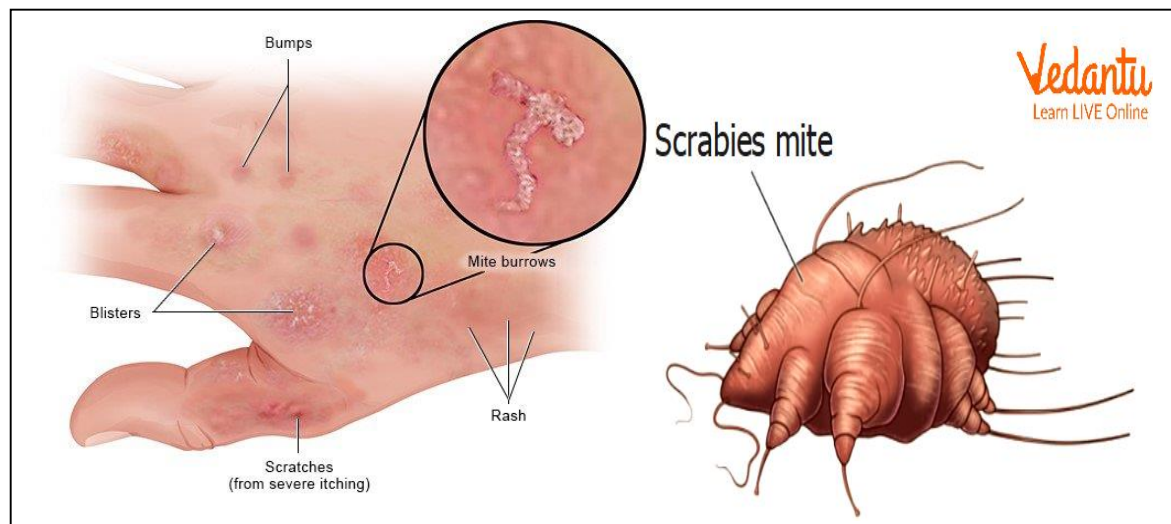


Fig. 1 Scabies mites and anatomy of Skin during Scabies

Jarb is synonymous to scabies which is a contagious skin disease produced by adult female mites, *Sarcoptes scabiei* that harbours mainly on the finger web spaces, the flexor aspects of the wrist, the nipple of the woman and genital area⁵ which appear as fine, tortuous “S” shaped blackish threads of a few mm length,^{3, 4, 6, 7} and is transmitted through skin to skin contact and sexual transmission is also common, but non sexual transmission occurs by shared bedding, towel, clothing etc in family members.^{1,8,9,10} Scabies occurs equally in both sexes and in all age groups, but the incidence is higher in children younger than 2 years of age. The popular pruritic eruption resulting from hypersensitivity reaction to the mites and its products¹¹ mostly manifest around the abdomen, the lower portion of the buttocks, the axillary folds, and the elbows. As such there is no life threatening complication, however if not treated properly, may lead to eczematization, commonly in infants and young children, as well as secondary infections such as contact dermatitis and urticaria.

A number of therapeutic measures are being proposed in conventional medicine but most of them have numerous side effects, like nausea and vomiting, weakness, tremors, irritability, disorientation, neurotoxicity is noticed in gamma benzene hexachloride 1% lotion or cream. Hence, there is dire need of alternative herbal therapies that are safe and effective in Jarb. By the principles of treatment in Unani medicine, topical application has been preferred over other modalities in the treatment of Jarb and numerous Tila and Zimad are mentioned in classical text for its treatment. Unani physician have treated Jarb with the drugs that possess Muhallil (resolvent), Jali (detergent), Dafa-e-Ta’ffun (disinfectant), and Mundammil-e- Qurooh (cicatrizant) properties such as *Tamarindus indica*,¹² Gandhak Aamla Saar (sulphur); Neela Thotha (Copper sulphate); Kameela (*Mallotus philipensis*); Mudar-e-Sang^{13, 14}. Keeping these medicinal properties in consideration, Zimad-e-Jarb was selected for the study from Hamdard Pharmacopeia of Eastern medicine, as this formulation is endowed with the above mentioned properties. Despite Zimad-e-Jarb having been used since

antiquity, it is yet to be explored on recent scientific parameters and as such no scientific data is available for its efficacy and safety. Hence, the clinical trial entitled “Therapeutic evaluation of Zimad-e-Jarb in Jarb (Scabies)-A single blind randomized controlled study” with the objective of comparing the safety and efficacy of Unani formulation in the management of Jarb on scientific parameters.



Fig. 2 Scabies- A Common skin problems in male and female

II. Nature of the Infection of Scabies (Jarb)

Scabies is a common parasitic infection caused by the mite *Sarcoptes scabiei* variety *hominis*, an arthropod of the order Acarina. The worldwide prevalence has been estimated at about 300 million cases yearly, although this may be an overestimate. Scabies occurs in both sexes, at all ages, in all ethnic groups, and at all socioeconomic levels. In an epidemiologic study in the United Kingdom, scabies was shown to be more prevalent in urban areas and among women and children and more common in winter than in summer.¹ Scabies is generally a nuisance on account of itching, rash, and its ability to spread among people; super infection may also occur. The risk of severe outbreaks and complicated scabies is particularly high in institutions (including nursing homes and hospitals) and among socially disadvantaged populations and immune compromised hosts. The mite is an obligate parasite that completes its entire life cycle on humans. Only female mites burrow into the skin (Fig. 1). The maturation process lasts about 15 days, with the larvae emerging 2 to 3 days after the eggs are laid.² About 5 to 15 female mites live on a host infected with classic scabies, but the number can reach hundreds or even millions in cases of crusted scabies. The skin eruption of classic scabies is considered a consequence of both infestation and a hypersensitivity reaction to the mite. The incubation period before symptoms occur is three to six weeks for primary infestation but may be as short as one to three days in cases of re-infestation.



Fig. 3 Scabies- Infected part of body

III. Transmission of wet Scabies (Jarb)

Mites cannot fly or jump but crawl at the rate of 2.5 cm per minute on warm skin. They can survive for 24 to 36 hours at room temperature and average humidity and remain capable of infestation and epidermal burrowing. The more parasites on a person, the greater the likelihood of transmission, either direct (i.e., skin-to-skin contact) or indirect (e.g., through infested bedding, clothing, or other fomites). The predominant route of transmission is direct skin-to-skin contact. Transmission by means of shared clothing or other indirect method is rare with classic scabies but may occur with crusted scabies (e.g., in immune compromised hosts). Transmission among family members and in institutional settings is common. Sexual transmission also occurs. In a study of risk factors for scabies in a clinic for sexually transmitted infections, 4 high-risk persons included men who have sex with men and men with sporadic sexual contact. There is no evidence to suggest that mites can transmit infection with the human immunodeficiency virus (HIV).

IV. Scabies in children.

Scabies is an intensely itchy dermatitis caused by the mite *Sarcoptes scabiei*. The infestation can occur at all ages but particularly occurs in children. Scabies is most prevalent in children under 2 years old. Children in developing countries are most susceptible for it, with an average prevalence of 5%-10%. The most common source of transmission is prolonged skin-to-skin contact with an infected individual. Mites in the epidermis are resistant to water and soap, and continue viability even after daily hot baths. Infants and children are particularly liable to infection from close physical contact with other children and adults. Predisposing factors of scabies include overcrowding, poor hygiene, poor nutritional status, homelessness. Poverty and overcrowding are the main risk factors for it, and scabies outbreaks are prevalent in institutions and refugee camps.

Scabies is typically presented with a generalized pruritic rash, worsening at night. The clinical presentation of

scabies varies according to age. Relapse, the presence of nodules and involvement of soles and scalp are independently associated with the age group of <2 years. Patients aged 2 to 15 years are more at risk for relapse, with more frequent shared pruritus and involvement of soles and scalp. The face, ankles and foot, soles, head and neck, and scalp were almost exclusively involved in patients aged <15 years.



Fig. 4 Scabies in Toddler and infants & its location

Nodules were commonly located in axillary and back areas in infants. Palmoplantar lesions were more frequently observed in infants, with sole involvement being more frequent than palm involvement in children and infants. The dorsum of the forefoot is rarely involved in infants and must be assessed during physical examination. Periungual involvement was detected in infants and children. The involvement of the lower limbs revealed an increasing gradient according to age; lower limbs are frequently involved in infants. Face involvement was only found in children and infants. Boralevi et al. found that approximately 20% of infants and children mainly showed daytime pruritus (13). Crusted scabies or Norwegian scabies is a severe infestation with thousands of mites, associated with extremely high risk of contagion which causes considerable morbidity. Clinical diagnosis is based on identifying burrows in the skin coupled with clinical features like itching in other members of the family, itching that is worse at night, and the anatomical distribution of lesions. Differential diagnosis is popular urticaria, lichen planus, atopic eczema, acropustulosis of infancy, and dermatitis herpetiformis. Atopic eczema is frequently mistaken for scabies. This disease is characterized by itching and vesico popular eruption predominantly in the flexors. Scabies can be differentiated by the presence of burrows, web space involvement and exacerbation with topical steroids. Infestation is complicated by bacterial skin infections including impetigo, cellulitis, abscess and acute post streptococcal glomerulonephritis; lymphangitis and septicemia have also been reported in crusted scabies

V. Signs and Symptoms of Wet Scabies (Jarb)

Scabies typically causes intense itching, which can be worse at night and potentially so persistent that it keeps you from sleeping. This itching is the earliest and most common [symptom of scabies](#). (3) Scabies can occur anywhere on the body, but the mites tend to prefer certain areas, including: the hands (especially the skin between the fingers and around the nails), armpits, elbows, wrists, and areas of skin that are usually covered by

clothing, such as shoulder blades, the groin area, breasts, the area around the beltline, and the buttocks. Skin that's covered by jewelry, such as watches, bracelets, or rings, is also often affected. (4) In young children and infants, itching and rash may affect the head, face, neck, palms, and the soles of the feet, but this typically doesn't occur in adults and older kids. (1) Scabies rashes in infants and young children might appear redder or include larger blisters. (5)

VI. Causes and Risk Factors of wet Scabies (Jarb)

Scabies is contagious, and it's usually spread by having direct, prolonged skin-to-skin contact with an affected person. The exposure generally has to be sustained: A handshake or hug typically doesn't spread the mites, but holding hands for 5 or 10 minutes can. (The exception is crusted scabies, where an infested person can transmit the mites even with very brief contact.) In adults, scabies is often spread through sexual encounters. And it's easily spread within households. While the mites live for one to two months on human skin, they can survive for up to four days on inanimate objects such as bedsheets, clothing, and towels. Less commonly, scabies can occur through contact with an infested item. This kind of indirect infection more frequently occurs in people who have crusted scabies. Scabies are not spread to people from pets. Pets can become infested with animal mites, and these can be passed along to humans. But animal mites can't reproduce on a person, and even if they get under a person's skin, they'll die within a couple of days. It's important to treat your pets, though, if they acquire mites. Getting scabies from swimming in a pool is extremely unlikely. In most cases of scabies, excluding crusted scabies, an infested person has only 10 to 15 mites on their body, and the chances that a mite would emerge from beneath wet skin are very low. Still, although it is uncommon, you could contract scabies by sharing a towel with an infested person.

Scabies is highly contagious and can be spread through:

- Sexual contact
- Long periods of skin to skin contact
- Sharing clothes, sheets, and towels

Anyone in direct contact with someone who has scabies is at risk of developing an infestation. Sexual partners, friends, and family members are at high risk of developing the condition. Crowded conditions are another risk factor. Some places scabies can quickly spread include:

- Schools
- Daycares
- Prisons
- Locker rooms
- Rehab facilities
- Nursing homes

VII. Prevention of wet Scabies

Experimental research is underway to develop a vaccine to prevent scabies, though it would likely take years before it would be available. (15) There is currently no surefire way to avoid getting scabies, other than to avoid close contact with an infested person and certain items they've used, such as clothing, bedding, and towels. To ensure successful treatment and reduce the chance of re-exposure, bedding, clothing, and towels used by a person with scabies or anyone they came in close contact with must be washed in hot water and dried

with high heat. You can also dry-clean these items or seal them in a plastic bag for at least 72 hours to kill any mites that may still be around. (10) When you start treatment, vacuum your home, too. (11)



Fig. 5 Avoid personal contact, kissing, & Sexual activity during Scabies

VII. Home remedies for scabies

A. Tea tree oil

Tea tree oil is a well-known essential oil. In some [studies](#), it has shown some promise as being effective in the treatment of scabies. Additional studies are still needed, however. Tea tree oil can help alleviate some of the itchiness associated with scabies, in addition to other treatments. The oil has not been found to be effective against the eggs that are buried deep within the skin. Some people are allergic to tea tree oil. People who are allergic should not use tea tree oil for scabies and should find an alternative method.



Fig. 7 Household remedies for control of Scabies

B. Aloe vera

Aloe vera is well-known for its soothing effect on [sunburn](#) and other skin ailments. Aloe vera is usually considered safe to use with minimal side effects reported. One small [study](#) has shown that aloe vera is effective in treating scabies. It was, in fact, found to be as effective as a prescription drug called benzyl benzoate. More research is required to fully test the effects of aloe vera in the treatment of scabies.

C. Neem

Neem is an oil. It can be found in creams and ointments. Neem has analgesic, antibacterial, and anti-inflammatory properties. There have been some studies that suggest that neem is effective in treating scabies because it kills the mites. One [study](#) tested the effects of neem on dogs. Most of the dogs were cured of scabies within 2 weeks of consistently using shampoo that contained neem. The dogs that did not fully recover saw big improvements in the total number of mites left in their skin. Additional studies on humans are needed to test neem's effectiveness as a treatment for scabies in humans.

D. Clove oil

A single [study showed](#) that clove oil was effective in treating scabies in a group of rabbits and pigs. Other oils tested did not perform as well as clove oil. Again, this is a case where additional studies need to be done to fully test whether or not clove oil is effective on scabies when the mites occur in humans.

E. Cayenne pepper



Fig. 8 Cayenne papper and Turmeric used in Scabies

Cayenne pepper has not been proven effective in treating scabies. Nevertheless, some people believe that it is an effective treatment against the mites. Cayenne pepper does have some usefulness when it comes to scabies, despite some controversy. According to one [study](#), capsaicin, a compound found in cayenne pepper, desensitizes the skin when it is applied directly. This can help alleviate some of the pain and itchiness associated with scabies. Creams with capsaicin are available to purchase [online](#). Speak to a doctor before using these products.

F. Turmeric

Little evidence supports the effectiveness of turmeric in treating scabies. However, some people claim that it is effective in alleviating the symptoms. Treating the symptoms will not stop or cure the infestation, so other methods of treatment will still be required.

G. Zinc

Zinc is not a direct treatment for scabies. Instead, people recommend using zinc to help fight off secondary infections that may result from the open skin wounds that can result from a person scratching.

H. Wash clothes in hot water

Though not a direct treatment for the infection, an individual should wash any clothing, bedding, or other fabric that has come in contact with them or their skin if they have scabies. This will remove mites hiding in the fabric and help prevent them spreading to other areas of their body or other individuals.

I. Borax

Borax or sodium borate is controversial at best. It is mostly used in household cleaning products, such as laundry washes. Though some people claim it can help with scabies, others question it is safe to use for humans. It should not be used directly on the skin, but it may be effective in a person's laundry when trying to eliminate the scabies mites.

J. Apple cider vinegar

Much has been written about apple cider vinegar, and some believe it may be effective in treating scabies. There is little evidence to back up the claims, however.

SCABIES: TIPS FOR MANAGING

Scabies is a common skin condition caused by the human itch mite. People get scabies when the mite burrows into the top layer of their skin to live and feed. When the skin reacts to the mite, an extremely itchy rash develops. If you suspect you have scabies, follow these tips from board-certified dermatologists to help you get rid of the mites. The mite that causes scabies is hardy. These tips can help you get rid of the mites.

- **If you think you have scabies, don't be embarrassed to see a dermatologist.** Some people do not seek medical help because they feel this reflects poorly on them. This is not true. People who are very clean and neat can get scabies. People of all ages, races, and income levels get scabies.
- **Everyone you had close contact with needs treatment.** Scabies is very contagious. If you get treatment and people with whom you live or have close contact do not get treatment, you can get the mites again. People do not have to have signs and symptoms of scabies to have mites on their skin. Someone who has never had scabies may not have any symptoms for two to six weeks.
- **If your dermatologist prescribes a medicine that you apply to your skin, be sure to take a bath or shower before you apply the medicine.** You should then massage the medicine onto clean, dry skin. The medicine must remain on the skin for 8 to 14 hours. You will then wash off the medicine. For this reason, most people apply the medicine at bedtime and wash it off in the morning.
- **Apply the medicine from your neck to your toes.** This includes all skin between your neck and toes—the skin around your nails, the crease between your buttocks, and the skin between your toes. Infants, children, and the elderly often need to treat their scalp, temples, and forehead. You should never apply medicine to the nose, lips, eyelids, nor around the eyes or mouth.
- **If you wash your hands after applying the medicine, be sure to reapply the medicine to your hands.** Mites like to burrow in the hands, so it is important to treat the hands. Be sure to apply the medicine to the skin between your fingers.
- **The day you start treatment, wash your clothes, bedding, towels, and washcloths.** Mites can survive for a few days without human skin. If a mite survives, you can get scabies again. To prevent this, you must wash clothes, sheets, comforters, blankets, towels, and other items. Be sure to follow these instructions when washing:
 - Wash all items in a washing machine, using the hottest water possible.
 - After washing, dry everything in a dryer, using the hot setting.
 - If you cannot wash something in a washing machine and then dry it in a dryer, take it to a dry cleaner or seal it in plastic bag for at least one week.
 - Items that have not touched your skin for more than 1 week generally do not need washing. If you are not sure whether you wore clothing or used an item within the past week, be sure to wash and dry it.

Wash and dry items the day you start treatment

Washing clothes, bedding, and towels is necessary to get rid of the mites that cause scabies.



Fig. 9 Cloth Hygiene to control the Scabies

- **Vacuum your entire home on the day you start treatment.** Vacuum carpeting, area rugs, and all upholstered furniture.
- **Do not treat your pets.** The human itch mite cannot survive on animals. Pets do not need treatment.

Conclusion.

Scabies is a common disease that often dominates the pattern of skin infection in developing countries, where it causes both distress and discomfort to children and families. Largely through poor management, families are forced to spend much of their scarce money in trying to treat this infection. Secondary bacterial infection is almost universal in this environment, with potentially serious consequences for the individual's health. *Sarcoptes scabiei* cannot survive without human beings. Scabies is frequent in children and causes considerable morbidity. It imposes distress to children and their families, and its treatment is very costly. Scabies should be managed properly in accordance with the guidelines, because of its complications, like acute poststreptococcal glomerulonephritis. Further studies are required to develop appropriate regimens for children with scabies using different agents.

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