Scabies

Scabies is a skin infestation spread by direct person-to-person contact caused by the Sarcoptes scabiei mite. Signs and symptoms include extremely pruritic, small, erythematous papules that are often excoriated and tipped with hemorrhagic crusts. The mites burrow in the warm creases of the skin, such as in the interdigital web spaces, wrists, elbows, axillae, nipples, the inguinal/buttock area, lower abdomen and the umbilicus. Diagnosis is often made clinically, based on the history and the distribution of lesions. Diagnosis can also be made via skin scrapings, and by viewing the mites and eggs under microscopy. Scabies can be treated with includes permethrin cream, oral ivermectin or lindane cream.



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Pathophysiology

Sarcoptes Scabiei Mite
Sar-cop-agus Scarab-eye
Also called the itch mite, Sarcoptes scabiei is a parasitic arthropod that burrows into the skin and causes scabies. The scabies mite is found all over the world and can infect humans and other mammals such as dogs, cats, etc.

Signs & Symptoms

Pruritus
Prairie-dog
Severe itching of the skin, or pruritus, is the most common presenting symptom of scabies infections because the mites burrow under the skin and cause inflammation. This is a form of type IV hypersensitivity reaction.

Papules with Burrows
Papule-people and Burrows
The scabies mites burrow underneath the skin and create papules. The burrows are caused by female scabie mites tunneling just beneath the skin surface. The burrows often appear as tiny, raised, crooked (serpiginous) gray-white or skin colored lines. These papules most often appear in warmer regions and creases of the body, often where skin meets skin such as between the fingers, in the axilla, around the nipples and the groin.

Webs of Fingers and Toes
Webs on Fingers and Toes
Scabies mites often burrow in the skin between the webs of the fingers. This is one of the first places to look for papules with burrows when a patient presents with a history and symptoms suspicious of scabies.

Axilla and Nipples
Axe and Nipples
The mites like to burrow in warm places on the body. Papules and burrows of scabies mites can often be found in the axilla, around the nipples as well as the inguinal and buttock region.

Diagnosis

Skin Scraping
Skin Scraper
A diagnosis of scabies can often be made based on a detailed history and based on the distribution of the pruritic rash, but a definitive diagnosis can be made by taking skin scrapings and viewing them under a microscope.

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Dermoscopy
Skin-scope
Examination of the skin surface with a handheld dermatoscope, or dermoscopy, can allow for visualization of specific structures related to the more superficial layers of the skin.

Mites and Eggs on Magnification
Mites & Eggs on Magnifying-glass
Using a handheld dermatoscope, eggs and mites can be viewed under magnification.

Treatment

Permethrin Cream
Persian-kitten
Topical 5% permethrin cream is one of the most commonly used treatment for scabies. For non-crusted scabies, topical 5% permethrin or oral ivermectin can be used. For crusted scabies, topical 5% permethrin or 5% benzoyl benzoate AND oral ivermectin can be used.

Oral Ivermectin
Big-mouthed Ivory-medicine-man
For non-crusted scabies topical 5% permethrin OR oral ivermectin can be used. For crusted scabies, topical 5% permethrin or 5% benzoyl benzoate AND oral ivermectin can be used.

Lindane Cream
London-bridge Cream
For patients who have failed a safer, first-line treatment, lindane cream can be used. Though lindane cream should only be used for non-crusted lesions, as it is contraindicated in crusted scabies.

Considerations

Wash All Linens In Hot Water
Washing Linens in Hot Water
In addition to oral medication and creams, it is important to instruct patients to wash all their linens and recently worn clothing in very hot water to kill any mites that are in their bedding or on their clothes.

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