



REVIEW ON SKIN DISEASES, THEIR PATHOLOGY AND TREATMENT

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ABSTRACT

Skin diseases are among the most common health problems worldwide and are associated with a significant burden. The burden of skin disease is a multidimensional concept that includes psychological, social and financial consequences of the skin disease on the patients, their families and on society. With the availability of a wide range of health status and quality-of-life measures, the effects of most skin diseases on patients; lives can be measured efficiently. The aim of this review is to present some of the published data in order to highlight the magnitude of the burden associated with some common skin diseases and also to suggest ways to quantify this burden of skin disease. Infectious skin diseases pose considerable treatment challenges, especially given the recent appearance of several highly virulent pathogens as well as the rising number of immune compromised patients. This article discusses common bacterial, fungal, and viral skin infections with an emphasis on cellulitis, dermatophyte infections, and herpes simplex viral infections. Disease pathogenesis, treatment and treatment using herbal drugs are addressed.

KEYWORDS: Skin disease, pain, inflammation, antiviral, anti fungal, allergies, herbal drugs, antibacterial, cellulitis, dermis.

INTRODUCTION

Your skin is the largest organ of your body. Its function is to protect your body from infection. Sometimes the skin itself becomes infected. Skin infections are caused by a wide variety of germs, and symptoms can vary from mild to serious. Mild infections may be treatable with over-the-counter medications and home remedies, whereas other infections may require medical attention.

Classification

Out of many ways of classifying skin diseases this article contains classification based on microorganism:

- 1. Bacterial skin diseases:** Bacterial skin infections often begin as small, red bumps that slowly increase in size. Some bacterial infections are mild and easily treated with topical antibiotics, but other infections require an oral antibiotic.
- 2. Viral skin diseases:** Viral skin infections are caused by a virus. These infections range from mild to severe.
- 3. Fungal skin diseases:** These types of skin infections are caused by a fungus and are most likely to develop in damp areas of the body, such as the feet or armpit. Some fungal infections aren't contagious, and these infections are typically non-life-threatening.

4. Parasitic skin diseases: These types of skin infections are caused by a parasite. These infections can spread beyond the skin to the bloodstream and organs. A parasitic infection isn't life-threatening but can be uncomfortable.^[1]

Bacterial Skin Diseases

The two bacterial skin diseases we study in the article are given below:

CELLULITIS

Cellulitis is an infection of the dermis and subcutaneous tissue that has poorly demarcated borders and is usually caused by *Streptococcus* or *Staphylococcus* species.

Cellulitis is a painful, erythematous infection of the dermis and subcutaneous tissues that is characterized by warmth, oedema, and advancing borders. Cellulitis commonly occurs near breaks in the skin, such as surgical wounds, trauma, tinea infections, or ulcerations, but occasionally presents in skin that appears normal. Patients may have a fever and an elevated white blood cell count. Cellulitis can occur on any part of the body. Among the patients in the cohort above, the most common sites of cellulitis were the legs and digits,

followed by the face, feet, hands, torso, neck, and buttocks.^[2]

Treatment

In healthy adults, isolation of an etiologic agent is difficult and unrewarding. If the patient has diabetes, an immunocompromising disease, or persistent inflammation, blood cultures or aspiration (some physicians inject sterile nonpreserved saline before aspiration) of the area of maximal inflammation may be useful. For infection in patients without diabetes, empiric treatment with a penicillinase-resistant penicillin, first-generation cephalosporin, amoxicillin-clavulanate (Augmentin), macrolide, or fluoroquinolone (adults only) is appropriate. Limited disease can be treated orally, but more extensive disease requires parenteral therapy.

Marking the margins of erythema with ink is helpful in following the progression or regression of cellulitis. Outpatient therapy with injected ceftriaxone provides 24 hours of parenteral coverage and may be an option for some patients. The patient should be seen the following day to reassess disease progression.^[3]

Most cases of superficial cellulitis improve within one day, but patients who exhibit thickening of the dermis usually take several days of parenteral antibiotics before significant improvement occurs. Antibiotics should be maintained for at least three days after the resolution of acute inflammation. Adjunctive therapy includes the following: cool compresses; appropriate analgesics for pain; tetanus immunization; and immobilization and elevation of the affected extremity.

Herbal Drugs used in the treatment

Drug	Mechanism of action/Description	Phytoconstituents
<p>Tea tree oil (<i>Melaleuca alternifolia</i>) Family: Myrtaceae</p>	<p>Given the wonderful antimicrobial and anti-inflammatory properties of tea tree oil, it's no surprise that it can help in treating cellulitis. This oil is quite effective against a wide range of microbes, and can hence be used to fight the bacterial infection causing cellulitis. The anti-inflammatory properties of tea tree oil can also help in reducing the swelling and redness in the affected area.^[4]</p>	<p>The main chemical components of tea tree oil (also referred to as ti-tree oil) are a-pinene, b-pinene, sabinene, myrcene, a-phellandrene, a-terpinene, limonene, 1,8-cineole, y-terpinene, p-cymene, terpinolene, linalool, terpinen-4-ol and a-terpineol.</p>
<p>Oregano essential oil (<i>Origanum vulgare</i>) Family: Lamiaceae</p>	<p>Oregano essential oil possesses amazing antibacterial properties that can help in getting rid of the staph bacteria responsible for causing cellulitis. Additionally, the wound-healing potential of oregano oil can help reduce the symptoms of cellulitis and accelerate healing.^[4]</p>	<p>Their chemical composition was found as carvacrol (63.97%), p-cymene (12.63%) and linalool (3.67%) in oregano essential oil as major compounds</p>
<p>Turmeric (<i>Curcuma longa</i>) Family: Zingiberaceae</p>	<p>Turmeric possesses amazing antimicrobial and anti-inflammatory properties due to the curcumin present in it. The medicinal properties of turmeric, combined with the healing properties of honey, one of the best home remedies for cellulitis.^[4]</p>	<p>The compounds are called curcuminoids, the most important of which is curcumin. Curcumin is the main active ingredient in turmeric. It has powerful anti-inflammatory effects and is a very strong antioxidant</p>

Impetigo

Impetigo is most commonly seen in children aged two to five years and is classified as bullous or nonbullous. The nonbullous type predominates and presents with an erosion (sore), cluster of erosions, or small vesicles or pustules that have an adherent or oozing honey-yellow crust. The predilection for the very young can be remembered by the common lay misnomer, "infant tigo." Impetigo usually appears in areas where there is a break in the skin, such as a wound, herpes simplex infection, or maceration associated with angular cheilitis, but *Staphylococcus aureus* can directly invade the skin

and cause a de novo infection. The bullous form of impetigo presents as a large thin-walled bulla (2 to 5 cm) containing serous yellow fluid. It often ruptures leaving a complete or partially denuded area with a ring or arc of remaining bulla. More than one area may be involved and a mix of bullous and nonbullous findings can exist. Nonbullous impetigo was previously thought to be a group A streptococcal process and bullous impetigo was primarily thought to be caused by *S. aureus*. Studies.^[5] now indicate that both forms of impetigo are primarily caused by *S. aureus* with Streptococcus usually being involved in the nonbullous form. If the infection is

a toxin-producing, phage group II, type 71 *Staphylococcus* (the same toxin seen in *Staphylococcus* scalded skin syndrome, a medical emergency where large sheets of the upper epidermis slough off), large bullae will form as the toxin produces intradermal cleavage.^[6]



Fig 2: A child suffering from impetigo.

Treatment

A study published in 1990 concluded that topical mupirocin (Bactroban) ointment is as effective as oral

erythromycin in treating impetigo. However, because the lesions of bullous impetigo can be large and both forms of impetigo can have satellite lesions, an oral antibiotic with activity against *S. aureus* and group A beta-hemolytic streptococcal infection is warranted in nonlocalized cases. Because of developing resistance, erythromycin is no longer the drug of choice. Azithromycin (Zithromax) for five days and cephalexin (Keflex) for 10 days have been shown to be effective and well-tolerated. Dicloxacillin (Pathocil), oxacillin (Prostaphlin), first-generation cephalosporins, or amoxicillin-clavulanate are also acceptable alternatives. Broad-spectrum fluoroquinolones have also been shown to be effective, and several have been approved by the U.S. Food and Drug Administration for treating skin and soft tissue infections. These medications have excellent skin penetration and good bioavailability, but no generic forms are currently available, and they are only approved for use in adults.^[7]

Herbal drugs used in treatment

Drug	Mechanism of action/ Description	Phytoconstituents
<p>Garlic (<i>Allium sativum</i>) Family: Amaryllidaceae</p>	<p>Garlic has historically been used to treat bacterial, viral, and fungal infections. Garlic extracts may suppress both bacteria strains that cause impetigo. One 2011 study showed it had some effectiveness in the lab against <i>Staphylococcus</i>. Another study conducted that year mentioned its effectiveness for <i>Streptococcus</i> strains.</p>	<p>The most important constituents of this plant are organosulfur compounds such as allicin, diallyl disulphide, S-allylcysteine, and diallyl trisulfide. Allicin represents one of the most studied among these naturally occurring compounds. In addition to <i>A. sativum</i>, these compounds are also present in <i>A. hirtifolium</i> (shallot) and have been used to treat various diseases.</p>
<p>Neem (<i>Azadirachta indica</i>) Family: Meliaceae</p>	<p>Neem is an Indian tree closely related to mahogany. Oil extracted from its bark is a popular alternative skin remedy. Neem is usually used for insect-related skin conditions like those that can result from lice or flea infestation. It also appears to be effective against certain bacteria, including strains that cause impetigo. One 2011 study showed it had activity against <i>Staphylococcus</i> bacteria. A 2013 study showed similar results against the two strains of bacteria that cause impetigo.^[8]</p>	<p>The most important active constituent is azadirachtin and the others are nimbolinin, nimbin, nimbidin, nimbidol, sodium nimbinat, gedunin, salannin, and quercetin.</p>

Viral Skin Diseases

The viral skin diseases studied here are:

Chicken pox

Chicken pox or varicella is an **itchy, red, lumpy rash** that is caused by the **varicella virus**. The Chicken pox virus is **highly contagious** for those who are not immune to it. You can only **become immune** to Chicken pox through already having the disease and developing **antibodies** to it or through **vaccination**, which has only been introduced in the last decade. Chicken pox is thought of as a **common and fairly harmless** childhood illness. The direct symptoms of chicken pox cause some discomfort without any complications. However, rarely the disease will predispose people to quite serious conditions that can

occur at the disease onset or years later. Once a person has developed chicken pox the virus that causes the illness never goes away but **lies dormant** in the dorsal column of the spinal cord. If this virus is reactivated later in life (most commonly decades later) a condition called **shingles** or **herpes zoster** can occur.

The first symptoms of chicken pox include:

- Headache;
- Fever;
- A general feeling of body discomfort and body aches;
- Fatigue; and
- Irritability.

After 48 hours the characteristic symptom of chicken pox will have developed which is the itchy, red and lumpy rash on the face, torso and limbs.^[9]

Treatment

The **chicken pox rash** contains many **lesions** which develop at different stages. New fluid filled blisters develop for the first seven days of rash progression. After a week the blisters will begin to dry up. The whole process can last up to 20 days.

To date the best treatment for chicken pox is prevention. Since 1999 the varicella vaccine has been subsidised in

Australia and accordingly the prevalence of chicken pox and the associated complications has decreased dramatically. In 2006 the second dose of the live, attenuated virus was approved by the American Food and Drug Administration for children between the ages of 4 and 6 but as yet it has not been determined whether this has impacted significantly on the incidence of breakthrough reactions. In Australia the dosing schedule involves only one dose at 18 months or 12 years of age. For people over 14 years, two doses of the vaccine are required, 2 months apart. The major adverse events associated with the vaccine are rash, fever and injection-site reactions, all relatively minor and treatable.^[10]

Herbal drugs used in the treatment:

Drug	Mechanism of action / Description	Phytoconstituents
Honey (<i>Apis mellifica</i>)	It is an ingredient that is very beneficial for the skin, helping to calm inflammation, reduce the risk for scarring, and promote faster healing during chicken pox.	Honey contains several phenols and flavonoids which constitute for antioxidant characteristic.
Neem (<i>Azadirachta indica</i>) Family: Meliaceae	Neem oil has many natural antiviral and antioxidant properties that help to soothe inflamed, swollen skin. It's known to help reduce itching, clustering of blisters, pain and scarring associated with many different rashes including chicken pox ^[11]	Azadirachtin is the most active component found in neem oil, along with other compounds like fatty acids and vitamin E. And because neem oil contains many antioxidants, such as carotenoids and quercetin, it's beneficial for overall skin

Measles

Measles is a viral disease that can spread rapidly. Also known as rubeola or morbilli, measles is an endemic disease, meaning it is continually present in a community, and many people develop resistance. It is an unpleasant condition but one that normally passes without treatment within 7 to 10 days. After a bout of measles, a person gains immunity for the rest of their life. They are very unlikely to contract measles a second time.

The symptoms of measles always include fever and at least one of the three Cs:

- Cough
- Runny nose
- Conjunctivitis

Symptoms will appear about 9 to 11 days. There is often a fever. This can range from mild severe, up to 40.6 degrees Centigrade. It can last several days, and it may fall and then rise again when the rash appears. The reddish-brown rash appears around 3 to 4 days after initial symptoms. This can last for over a week. The rash usually starts behind the ears and spreads over the head and neck. After a couple of days, it spreads to the rest of the body, including the legs. As the spots grow, they often join together.^[12]

Treatment

There is no specific treatment. If there are no complications, the doctor will recommend rest and plenty of fluids to prevent dehydration.

Symptoms usually go away within 7 to 10 days.

Herbal drugs used in the treatment

Drug	Mechanism of action/ Description	Phytoconstituents
Licorice <i>Glycyrrhiza glabra</i> Family: Fabaceae	Licorice root is very useful due to its antibacterial, antiviral and antifungal properties which make it an effective natural remedy for treating measles . Drink a glass of lukewarm water with half tablespoon liquorice powder daily to quickly cure your measles	These are typical phytochemicals found in licorice: glabrene, liquiritin, glycyrrhizin, flavonoids
Turmeric (<i>Curcuma longa</i>) Family: Zingiberaceae	Turmeric is loaded with curcumin, a powerful compound that's famous for its high nutrient content and anti-inflammatory characteristics. You can use turmeric by making a mixture of turmeric and coconut oil/water. Apply the paste to the affected skin and cover with a bandage	The compounds are called curcuminoids , the most important of which is curcumin . Curcumin is the main active ingredient in turmeric. It has powerful anti-inflammatory effects and is a very strong antioxidant ^[13]

Fungal skin diseases

The fungal skin diseases are as follows:

Athletes's foot

Tinea pedis or athlete's foot is a common fungal infection that affects the foot. Athlete's foot is commonly associated with sports and athletes because the fungus grows perfectly in warm, moist environments, such as socks and shoes, sports equipment, and locker rooms. In reality, anyone may be affected by athlete's foot. It is most common in warmer climates and summer months, where it can quickly multiply.



Athletes Foot

- Redness or blisters on the affected area
- The infected skin may be soft, or layers may start to break down
- Peeling or cracking skin
- The skin may scale and peel away
- Itching, stinging, or burning sensations in the infected area

Diagnosis, treatment, and prevention

Not all itchy feet are the result athlete's foot. Doctors usually diagnose the infection by scraping scaling skin off of a person and inspecting it under a microscope for evidence of any fungus. There are a few different fungi that can cause athlete's foot. The infection may behave differently depending on the specific fungus that is infecting the skin. Athlete's foot is often treated with topical antifungal ointments, which are available to purchase over-the-counter or. Severe infections can require additional oral medications as well. The feet will also need to be cared for and kept dry to help kill the fungus. Prevention methods include allowing the feet plenty of air to breathe and keeping them clean and dry. It is a good idea to wear sandals in public showers or locker rooms.^[14]

Symptoms

The symptoms of athlete's foot may vary slightly from person to person. Classic symptoms include:

Herbal drugs used in the treatment

Drug	Mechanism of action/ Description	Phytoconstituents
<p>Tea tree oil (<i>Melaleuca alternifolia</i>) Family: Myrtaceae</p>	<p>Tea tree oil is known to have antibacterial and antifungal properties. One study found that solutions containing 25 percent and 50 percent tea tree oil worked significantly better than a placebo in relieving athlete's foot between the toes. Another study found that tea tree oil was more effective at killing fungi than several other antifungal agents that were tested</p>	<p>The main chemical components of tea tree oil (also referred to as ti-tree oil) are a-pinene, b-pinene, sabinene, myrcene, a-phellandrene, a-terpinene, limonene, 1,8-cineole, y-terpinene, p-cymene, terpinolene, linalool, terpinen-4-ol and a-terpineol</p>
<p>Garlic (<i>Allium sativum</i>) Family: Amaryllidaceae</p>	<p>Garlic has a long history of medicinal use, and several studies have found garlic to be effective against some fungi and bacteria. A review in the <i>Avicenna Journal of Medicine</i> states that garlic can kill a variety of germs. Some evidence for garlic includes: A study in the <i>Journal of Applied Microbiology</i>, which states that fresh garlic extract can kill or stop the growth of <i>Candida</i>.^[15]</p>	<p>The most important constituents of this plant are organosulfur compounds such as allicin, diallyl disulphide, S-allylcysteine, and diallyl trisulfide. Allicin represents one of the most studied among these naturally occurring compounds. In addition to <i>A. sativum</i>, these compounds are also present in <i>A. hirtifolium</i> (shallot) and have been used to treat various diseases.</p>

Ringworm

Tinea corporis or ringworm is a skin infection caused by a fungus that lives on dead tissues, such as the skin, hair, and nails. Ringworm is the fungus that causes both jock itch and athlete's foot. When it appears anywhere else on the body, the infection is just called ringworm.

Symptoms



Figure 9: Ringworm is a skin infection that causes jock itch and athlete's foot.

Ringworm is usually easy to notice because of its shape. A red patch that may itch or be scaly will often turn into a raised, ring-shaped patch of skin over time. It may even spread out into several rings. The outside of this ring is red and may appear raised or bumpy, while the inside of the ring will remain clear or become scaly. Ringworm is highly contagious, and it can be transmitted by skin-to-skin contact, or from contact with pets, such as dogs. The fungus may also survive on objects, such as towels, clothes, and brushes. The ringworm fungus also infects soil and mud, so people who play or work in infected dirt may catch ringworm as well.

Diagnosis, treatment, and prevention

Other skin conditions may look like ringworm, so doctors will usually want to take a skin sample to inspect for the fungus. After confirming a diagnosis, doctors will recommend a treatment, depending on how severe the symptoms are. Creams and medicated ointments are often sufficient to treat many cases of ringworm, and may be purchased over-the-counter or online. Ringworm of the scalp or severe ringworm may require a prescription. Basic hygiene can help treat and prevent ringworm as well. Keeping the skin clean and dry can help avoid infection. Safety in public includes wearing sandals into public showers or locker rooms and avoiding shared items and towels.^[16]

Herbal drugs in the treatment of ringworms

Drug	Mechanism of action/ description	Phytoconstituents
Aloe vera (<i>Aloe barbadensis</i>) Family: Asphodelaceae	Aloe vera has long been used as a natural remedy for both bacterial and fungal infections, and ringworm is no exception. Aloe vera can treat the ringworm and may soothe symptoms of itchiness, inflammation, and discomfort	Aloe vera contains 200 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids and amino acids, which are responsible for the multifunctional activity of Aloe. It also contains Vitamin B ₁₂ , folic acid, and choline. Antioxidant neutralizes free radicals
Oregano oil (Origanum vulgare) Family : lamiaceae	Oregano essential oil may be a more powerful antifungal, and can inhibit and treat fungal skin infections, including athlete's foot and ringworm ^[17]	Their chemical composition was found as carvacrol (63.97%), p-cymene (12.63%) and linalool (3.67%) in oregano essential oil as major compounds

PARASITIC SKIN DISEASES

The following are two parasitic skin diseases reviewed here

Scabies

Scabies is a skin infestation caused by a mite known as the *Sarcoptes scabiei*. Untreated, these microscopic mites can live on your skin for months. They reproduce on the surface of your skin and then burrow into it and lay eggs. This causes an itchy, red rash to form on the skin. There are approximately 130 million cases of scabies in the world at any given time. It's a highly contagious condition that can easily be passed from one person to another through direct skin contact. It may also be transmitted through infested clothing or bedding. Although scabies can be bothersome, the infestation can usually be treated effectively. Treatment often consists of medications that kill scabies mites and their eggs. Since scabies is so contagious, doctors will usually recommend treatment for an entire group of people who are in frequent contact with a person who has scabies.

Symptoms

After the initial exposure to scabies, it can take up to six weeks for symptoms to appear. The symptoms usually develop more quickly in people who've had scabies before.

The hallmark symptoms of scabies include a rash and intense itching that gets worse at night. Continuous scratching of the infected area can create sores that become infected. If this occurs, additional treatment with antibiotics for the skin infection may be recommended.



Rashes consisting of tiny bites

The rash itself can consist of tiny bites, hives, bumps under the skin, or pimple-like bumps. The burrow tracks of the mite can sometimes be seen on the skin. They may appear as tiny raised or discoloured lines.

Treatment

Scabies treatment involves eliminating the infestation with medications. Several creams and lotions are available with a doctor's prescription.

Because scabies spreads so easily, your doctor will likely recommend treatment for all household members and

other close contacts, even if they show no signs of scabies infestation.

Medications commonly prescribed for scabies include:

- **Permethrin cream (Elimite).** Permethrin is a topical cream that contains chemicals that kill scabies mites and their eggs. It is generally considered safe for adults, pregnant women, and children ages 2 months and older.
- **Lindane lotion.** This medication — also a chemical treatment — is recommended only for people who can't tolerate other approved treatments or for whom other treatments didn't work. This medication isn't safe for children younger than age 10 years, women who are pregnant or nursing, or anyone who weighs less than 110 pounds (50 kilograms).
- **Crotamiton (Eurax).** This medication is available as a cream or a lotion. It's applied once a day for two days. The safety of this medication hasn't been established in children, adults 65 and older, or women who are pregnant or nursing. Frequent treatment failure has been reported with crotamiton.
- **Ivermectin (Stromectol).** Doctors may prescribe this oral medication for people with altered immune systems, for people who have crusted scabies, or for people who don't respond to the prescription lotions and creams. Ivermectin isn't recommended for women who are pregnant or nursing, or for children who weigh less than 33 pounds^[18]

Herbal drugs used in the treatment of scabies

Drug	Mechanism of action /Description	Phytoconstituents
Tea tree oil (<i>Melaleuca alternifolia</i>) Family:Myrtaceae	Tea tree oil. Tea tree oil is an effective topical treatment for scabies since it relieves itching and heals the rash on the skin, but it doesn't work as well on the eggs deeper in the skin. A review of studies from 2016 suggests that tea tree oil is a promising treatment option for scabies, especially for cases that did not improve using typical treatments. Tea tree oil has been shown to effectively treat scabies in lab tests and in people, though more large-scale, randomized controlled trials are needed. It is possible to be allergic to tea tree oil. If you develop an allergic reaction, discontinue use	The main chemical components of tea tree oil (also referred to as ti-tree oil) are a-pinene, b-pinene, sabinene, myrcene, a-phellandrene, a-terpinene, limonene, 1,8-cineole, y-terpinene, p-cymene, terpinolene, linalool, terpinen-4-ol and a-terpineol
Aloe vera (<i>Aloe barbadensis</i>) Family:Asphodelaceae	Aloe vera gel has a soothing, healing effect on sunburned skin. It can also alleviate itching and kill scabies. A 2009 study found that aloe vera gel was as successful as benzyl benzoate (a common prescription treatment) in treating scabies. No side effects were noted ^[19]	Aloe vera contains 200 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids and amino acids, which are responsible for the multifunctional activity of Aloe ^[7-9] It also contains Vitamin B ₁₂ , folic acid, and choline. Antioxidant neutralizes free radicals

Pediculosis

Pediculosis capitis is one of the most common ectoparasitic infestations, known since time immemorial. Its illustrative evidence comes from the oldest known fossils of louse eggs, approximately 10,000 years old. Children, in the age group of 5-13 years are the usual victims. pediculosis capitis may result in substantial social distress, discomfort, parental anxiety, embarrassment to the child, and unnecessary absence from school and work. There has been a perceptible upsurge of the incidence of pediculosis over the past 3 decades. Besides, there has been a surfacing up of treatment failures due to treatment-resistant lice over the past decades. Pyrethroids, lindane, and to some degree malathion, have been associated with treatment resistance. In this direction, recent approval of benzyl alcohol and spinosad by the United States Food and Drug

Administration for treating head lice infestation is a breakthrough. Adjunctive physical modalities also need to be reemphasized. Alternative medicine is being explored.

Treatment

Pharmacologic treatment of head lice infestation is focused on two general mechanisms: neurotoxicity that results in paralysis of the louse and suffocation via "coating" the louse. Most clinical trials use substances that work via neurotoxicity through topical products like lindane 1% shampoo, permethrin 1% lotion (Nix), pyrethrins 0.3%/piperonyl butoxide 4% shampoo or mousse (Rid), and malathion 0.5% lotion (Ovide). Permethrin is recommended as first-line treatment for pediculosis.^[20]

Herbal drugs used in the treatment of pediculosis

Drug	Mechanism of action/Description	Phytoconstituents
Hibiscus (<i>Hibiscus rosasinensis</i>) Family: Malvaceae	The <i>Hibiscus</i> genus contains several species, many of which have been used medicinally. Currently, there is limited available evidence evaluating the effects of hibiscus for the treatment of head lice. Study participants have been treated with creams containing hibiscus tea plus henna	The phytochemical analysis showed that <i>Hibiscus rosasinensis</i> contained tannins, anthraquinones, quinines, phenols, flavanoides, alkaloids, terpenoids, saponins, cardiac glycosides, protein, free amino acids, carbohydrates, reducing sugars, mucilage, essential oils and steroids
Lavender (<i>Lavandula angustifolia</i>) Family: Lamiaceae	Lavender oil is considered to be a natural insect repellent . It affects insects with its smell. Hence it is mostly used in the treatment of Pediculosis. ^[21]	Constituents: Lavender is comprised of over 100 constituents, including linalool, perillyl alcohol, linalyl acetate, camphor, limonene, tannins, triterpenes, coumarins ^[3,4,5] , cineole, and flavonoids

CONCLUSION

An attempt is made to provide simplified classification of skin diseases. This Review will discuss the impact of skin diseases and describe how to examine the skin and how its diseases may be effectively treated by both Scientific allopathy and herbal drugs. It is a compilation of short treatment of the basic features of some of the common skin diseases. The review contains classification of skin diseases under bacterial, viral, fungal, and parasitic diseases. Their pathology treatment and diagnosis. Not only allopathy means but by herbal means too. Herbals have great potential to cure different kinds of skin diseases. More than 80% of people in India depend on traditional health care and use different plant based products for curing skin related problems. Compared with the conventional allopathic drugs, they have relatively low cost and can be of great benefit to the population of India in general and poor people in particular. Herbals are a rich source of active ingredients and can be safer and cost effective treatment for skin diseases ranging from rashes to dreadful skin cancer. More than 50% of plant species useful for treatment of skin diseases appear to be restricted to forests, so activities such as deforestation, habitat destruction, urbanization etc., may pose a serious threat to these species. Conservation of these plants with the help of local participation and carrying out of extensive research in this respect to broaden the prospects of herbal drugs in skin disease treatment is the need of the hour.

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