

Allergic Dermatitis (Waram Jald Hassaasi):A Review Article

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Abstract:

Allergic dermatitis is a frequent inflammatory skin disease. The suspected diagnosis is based on clinical symptoms, a plausible contact to allergens and a suitable history of dermatitis. Differential diagnoses should be considered only after careful exclusion of any causal contact sensitization. It is a common skin disease caused by a T cell-mediated immune reaction to usually innocuous allergens. Allergic dermatitis can have grave medical and socioeconomic consequences. Allergic dermatitis and irritant contact dermatitis often occur together. A detailed history and clinical examination are crucial and guide patch testing, which is the gold standard to diagnose Allergic dermatitis. T-cell clones persisting in the skin may explain the tendency of Allergic dermatitis to relapse even after years of allergen avoidance. Traditional treatments for Allergic dermatitis are topical steroids, calcineurin inhibitors, phototherapy, retinoids, and immune suppressants. Targeted therapies are lacking. Allergic dermatitis accounts for 20% of contact dermatoses, and allergens differ greatly based upon geography, personal habits, and hobbies, and often, the types of preservatives that are legally permissible. Various Herbal Drugs are used in the treatment of Dermatitis in Unani system of Medicine. In house hold remedies various drugs like Tulsi, Neem, Ginger, Cinnamon, and Lemon are used to control the Dermatitis.

Keywords: Allergic Dermatitis, Prevention and managements, Herbal drugs.

I. Introduction of Allergic dermatitis

Allergic dermatitis is a type 4 or delayed-type hypersensitivity response (DTH) by an individual's immune system to a small molecule (less than 500 daltons) that contacts a sensitized individual's skin. The initial or induction phase of Allergic dermatitis occurs when the hapten combines with a protein to form a complex that leads to the expansion of an allergen-specific T cell population; the name for this process is sensitization. During the elicitation phase, re-exposure to the antigen leads to the development of dermatitis. Allergic dermatitis accounts for 20% of contact dermatoses, and allergens differ greatly based upon geography, personal habits, and hobbies, and often, the types of preservatives that are legally permissible, such as quaternium-15 in the United

States but not Europe.



Fig. 1 Symptom of Allergic Dermatitis



Fig. 2 Symptom of Allergic Dermatitis

II. Etiology of Allergic dermatitis

Allergic dermatitis is an inflammatory disease of the skin that is caused by a type 4 hypersensitivity reaction. It results from the contact of an offending chemical or antigen with the skin, and the subsequent T-cell mediated response. Morphology and location of the dermatitis are often the best indicators of the offending agent. For instance, when found around the wrist, it may indicate an allergic response to a bracelet or watchband. Poison ivy is a common cause of Allergic dermatitis and presents as linear streaks where the plant comes into contact with the skin. Nickel is another common cause of Allergic dermatitis and presents as dermatitis where necklaces and earrings containing nickel are worn. Rubber gloves are also a common cause of chronic dermatitis. Other agents include hair dyes, textile chemicals, preservatives, fragrances, sunscreens, and photo allergens.

III. Pathophysiology of Allergic dermatitis

The pathophysiology of allergic dermatitis starts with the contact of the allergen to the skin. This allergen penetrates that stratum corneum of the skin and is taken up by Langerhans cells. The antigens subsequently undergo processing by these cells and get displayed on their surface. Langerhans cells then migrate towards regional lymph nodes. The antigens taken up by these cells come in contact with the adjacent T-lymphocytes. Due to the process of clonal expansion as well as cytokine-induced proliferation, antigen-specific T lymphocytes get created. These lymphocytes may then travel through the blood and into the epidermis. This process collectively is known as the sensitization phase of allergic contact dermatitis. The elicitation phase is what occurs after reexposure to the antigen takes place. The Langerhans cells containing the antigen interacts with the antigen-specific T-lymphocytes for that antigen, which triggers a cytokine-induced proliferation process. This proliferation, in turn, creates a localized inflammatory response.

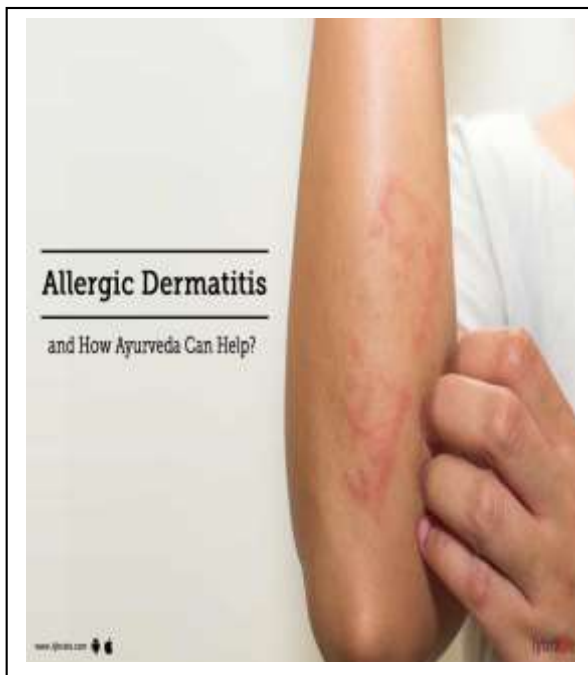


Fig. 3 Symptom of Allergic Dermatitis

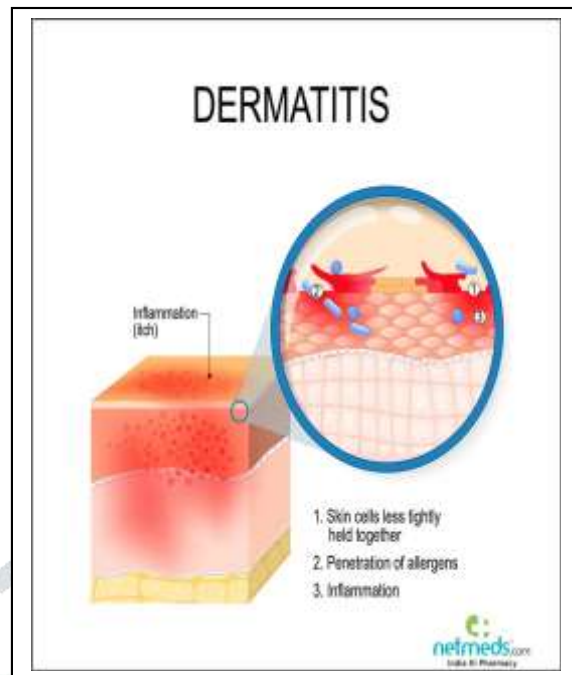


Fig. 4 Anatomy of skin in Dermatitis

Allergic contact dermatitis is a form of dermatitis/eczema caused by an allergic reaction to a material, called an allergen, in contact with the skin. The allergen is harmless to people that are not allergic to it. Allergic contact dermatitis is also called contact allergy. Allergic contact dermatitis is common in the general population and in specific employment groups. It is more common in women than men, mainly due to nickel allergy and, recently, to acrylate allergy associated with nail cosmetics.

1. Many young children are also allergic to nickel.
2. Contact allergy to topical antibiotics is common in patients over the age of 70 years old.
3. Allergic contact dermatitis is especially common in metal workers, hairdressers, beauticians, health care workers, cleaners, painters and florists.
4. Allergic dermatitis occurs when a substance to which you're sensitive (allergen) triggers an immune reaction in your skin. It usually affects only the area that came into contact with the allergen.
5. You may become sensitized to a strong allergen such as poison ivy after a single exposure. Weaker allergens may require multiple exposures over several years to trigger an allergy. Once you develop an allergy to a substance, even a small amount of it can cause a reaction.
6. Common allergens include:
 - Nickel, which is used in jewelry, buckles and many other items
 - Medications, such as antibiotic creams and oral antihistamines
 - Balsam of Peru, which is used in many products, such as perfumes, cosmetics, mouth rinses and flavorings
 - Formaldehyde, which is in preservatives, disinfectants and clothing
 - Personal care products, such as deodorants, body washes, hair dyes, cosmetics and nail polish
 - Plants such as poison ivy and mango, which contain a highly allergenic substance called urushiol

- Airborne substances, such as ragweed pollen and spray insecticides
- Products that cause a reaction when you're in the sun (photoallergic contact dermatitis), such as some sunscreens and oral medications

IV. Causes allergic dermatitis:

Allergic contact dermatitis is a type 4 or delayed hypersensitivity reaction and occurs 48–72 hours after exposure to the allergen. The mechanism involves CD4+ T-lymphocytes, which recognize an antigen on the skin surface, releasing cytokines that activate the immune system and cause the dermatitis.

- Contact allergy occurs predominantly from an allergen on the skin rather than from internal sources or food.
- Only a small number of people react to the specific allergen, which is harmless to those who are not allergic to it.
- They may have been in contact with the allergen for years without it causing dermatitis.
- Contact with tiny quantities of an allergen can induce dermatitis.
- Patients with impaired barrier function of the skin are more prone to allergic contact dermatitis, eg patients with leg ulcers, perianal dermatitis, or chronic irritant contact dermatitis.
- Patients with atopic dermatitis associated with defective filaggrin (a structural protein in the stratum corneum) have a high risk of also developing allergic contact dermatitis.

V. Clinical features of allergic dermatitis:

Allergic dermatitis arises some hours after contact with the responsible material. It settles down over some days providing the skin is no longer in contact with the allergen.

Allergic dermatitis is generally confined to the site of contact with the allergen, but it may extend outside the contact area or become generalized.

- Transmission from the fingers can lead to dermatitis on the eyelids and genitals.
- Dermatitis is unlikely to be due to a specific allergen if the area of skin most in contact with that allergen is unaffected.
- The affected skin may be red and itchy, swollen and blistered, or dry and bumpy.
- Some typical examples of allergic contact dermatitis include:
 - Eczema in the skin in contact with jewellery items, due to contact allergy to nickel
 - Reactions to fragrances in perfumes and household items
 - Eczema under adhesive plaster, due to contact allergy to rosin
 - Swelling and blistering of face and neck in reaction to permanent hair dye, due to allergy to paraphenylenediamine
 - Hand dermatitis caused by rubber accelerator chemicals used in the manufacture of rubber gloves
 - Itchy red face due to contact with methylisothiazolinone, a preservative in wash-off hair products and baby wipes
 - Fingertip dermatitis due to acrylates used in hair extensions and nail cosmetics.

- Reactions after dental implants containing acrylates
- Localised blistering at the site of topical medications such as antibiotics Swelling and blistering on exposed sites (eg face and hands) due to contact with plants such as poison ivy or, in New Zealand, the Japanese wax tree Toxicodendron succedaneum

VI. Diagnosis of allergic dermatitis:

Allergic contact dermatitis should be distinguished from:

- Irritant contact dermatitis, which is due to irritation or repetitive injury to the skin. Irritants include water, soaps, detergents, solvents, acids, alkalis, and friction. Irritant contact dermatitis may affect anyone, providing they have had enough exposure to the irritant, but those with atopic dermatitis are particularly sensitive. Most cases of hand dermatitis are due to contact with irritants. Irritant contact dermatitis can occur immediately after a single injury or develop slowly after repeated exposure to an irritant.
- Other forms of dermatitis, which may mimic allergic contact dermatitis.
- Contact urticarial, in which a rash appears within minutes of exposure and fades away within minutes to hours. The allergic reaction to latex is the best-known example of allergic contact urticarial.
- Fungal infections; tinea corporis may present as a unilateral rash.

VII. Complications of allergic dermatitis:

Allergic contact dermatitis starts as a localized reaction to an allergen in contact with the skin, but severe reactions may generalize due to auto eczematization and can lead to erythroderma. Ingestion of a contact allergen may rarely lead to baboon syndrome or generalized systemic contact dermatitis.

Sometimes contact allergy arises only after the skin has been exposed to ultraviolet light. The rash is confined to sun-exposed areas even though the allergen may have been in contact with covered areas. This is called photo-contact dermatitis. Examples of photo-allergy include:

- Dermatitis due to a sunscreen chemical, affecting the top but not the under the surface of the arm
- Dermatitis of face, neck, arms and hands due to antibacterial soap.

VIII. Prevention of Allergic dermatitis

General prevention steps include the following:

- **Avoid irritants and allergens.** Try to identify and avoid substances that irritate your skin or cause an allergic reaction.

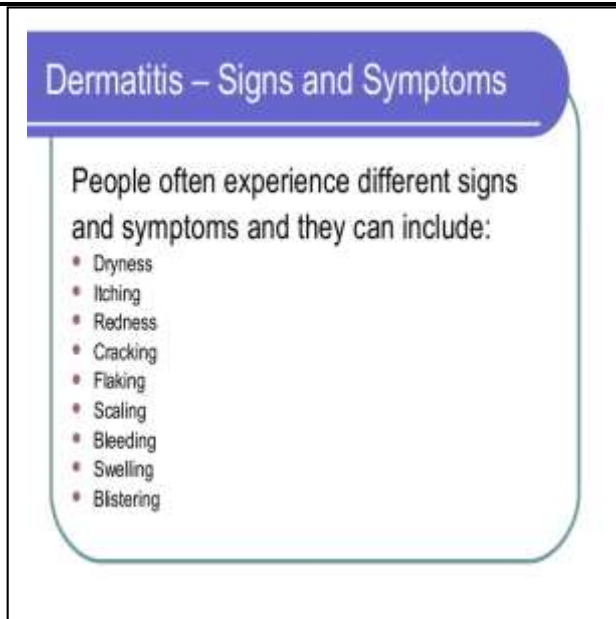


Fig. 5 Symptom of Allergic Dermatitis

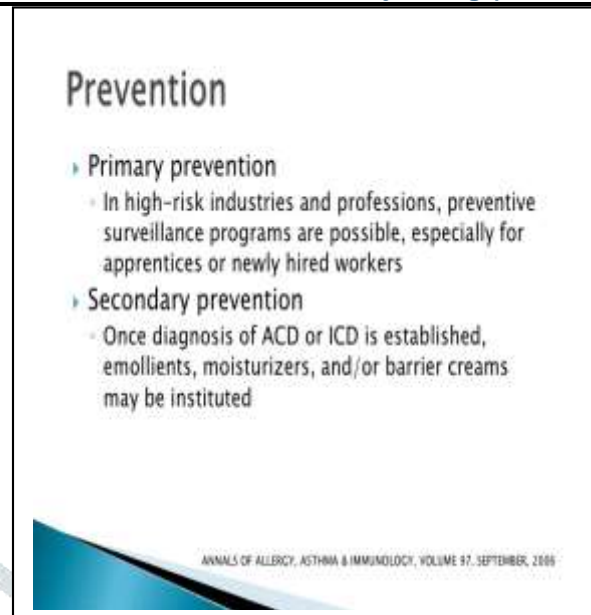


Fig. 6 Prevention of Allergic Dermatitis

- **Wash your skin.** You might be able to remove most of the rash-causing substance if you wash your skin right away after coming into contact with it. Use a mild, fragrance-free soap and warm water. Rinse completely. Also wash any clothing or other items that may have come into contact with a plant allergen, such as poison ivy.
- **Wear protective clothing or gloves.** Face masks, goggles, gloves and other protective items can shield you from irritating substances, including household cleansers.
- **Apply an iron-on patch to cover metal fasteners next to your skin.** This can help you avoid a reaction to jean snaps, for example.
- **Apply a barrier cream or gel.** These products can provide a protective layer for your skin. For example, an over-the-counter skin cream containing bentoquatam may prevent or lessen your skin's reaction to poison ivy.
- **Use moisturizer.** Regularly applying moisturizing lotions can help restore your skin's outermost layer and keep your skin supple.
- **Take care around pets.** Allergens from plants, such as poison ivy, can cling to pets and then be spread to people.

IX. Treatment and Management of Allergic dermatitis

The only definitive treatment of Allergic dermatitis is the identification and removal of the offending agent, and all patients with suspected or confirmed Allergic dermatitis should be advised of this. First-line medical therapy includes topical steroids when Allergic dermatitis is confined to less than 20% of the body, and oral corticosteroids when greater than 20% of the body is involved. If Allergic dermatitis involves a delicate area such as skin folds or eyelids, topical calcineurin inhibitors or PDE4 inhibitors may also be effective. Upon identification of the allergen, strict avoidance is necessary to prevent a recurrence. Symptomatic management

includes oral antihistamines, topical hydrocortisone, and cool water soaks. Vesicles should not be ruptured as there is a risk of infection. The use of moisturizers is a recommended adjunct.

Active dermatitis is usually treated with the following:


Treatment options

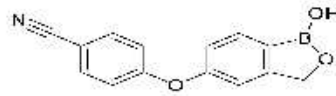
• Non pharmacological:

- Emollients
- Skin care
- Baths, Wet wraps

• Topical agents:

- Steroids, calcineurin inhibitors
- Antimicrobial agents, Crisaborole





J Am Acad Dermatol 2014, 70(2): 338 – 351.
www.wjctnc2018.org

Fig. 7 Treatment Options of Allergic Dermatitis

- Emollient creams
- Topical steroids
- Topical or oral antibiotics for secondary infection
- Oral steroids, usually short courses, for severe cases
- Phototherapy or photochemotherapy.
- Azathioprine, ciclosporin or another immunosuppressive agent.
- Tacrolimus ointment and pimecrolimus cream are immune-modulating calcineurin inhibitors and may prove helpful for allergic contact dermatitis.

X. Herbal treatment of Allergic dermatitis:

A. Arnica

Arnica is derived from the dried flowers of *Arnica montana* or other arnica species. Although oral administration can cause severe health hazards even in small amounts, preparations for external use are very safe and effective. Arnica has been used for centuries as an anti-inflammatory drug to rub into sore muscles and joints, bruises, insect bites, boils, inflamed gums, acne eruptions, and hemorrhoids. It is also an ingredient found in many seborrheic dermatitis and psoriasis preparations. It is approved by Commission E for topical treatment of skin inflammation. When used as a compress, 1 tablespoon (tbsp; 15 mL) of tincture is mixed with 0.5 L of water; if used as an infusion, 2 g of dried arnica is mixed with 100 mL of water. Cream or ointment preparations should contain a maximum of 15% arnica oil or 20–25% tincture. The active ingredients of arnica are the sesquiterpene lactones such as helanalin, 11 α , 13-dihydrohelenalin, chamissonolid, and their ester derivatives. These

components reduce inflammation by inhibiting the transcription factor nuclear factor κ B (NF- κ B). The factor NF- κ B controls the transcription of many genes, including cytokines such as interleukin (IL)-1, IL-2, IL-6, IL-8, and tumor necrosis factor α , as well as adhesion molecules such as intercellular adhesion molecule 1, vascular cellular adhesion molecule 1, and endothelial leukocyte adhesion molecule 1. It also inhibits many genes responsible for antigen presentation and activation of cyclooxygenase 2. There are reports of contact dermatitis caused by arnica. There are also several reports of irritation when arnica is used at stronger concentrations or for longer periods than are recommended. It is not recommended for use on open wounds or broken skin, and is included in Class 2d. It is important to buy arnica from a reputable source, because it is a protected species in some countries and other plants are substituted fraudulently.

B. German chamomile

German chamomile (*Matricaria recutita*), a member of the daisy family, has been used for centuries, both internally and externally, for treating many conditions, especially gastrointestinal tract symptoms, oral or skin inflammation, as well as dermatitis. A tea is made by using 2–3 teaspoons (tsp; 10–15 mL) of dried flowers per cup of water and is taken internally or used as a compress. Topical preparations with cream or ointment bases are also used and researched in Germany. Studies have demonstrated that topical chamomile is comparable with 0.25% hydrocortisone and shows improvement in sodium lauryl sulfate–induced contact dermatitis. A small double-blind trial found that chamomile significantly decreased the surface area of wounds and, in animal studies, healing time was found to be reduced with chamomile. Chamomile also shows *in vitro* antimicrobial activities. The main adverse effect reported is allergic contact dermatitis. Chamomile is considered safe to use topically and orally.

Herbal medicine derived from TCM for the treatment of atopic dermatitis has been reported effective by British studies. In TCM, the body is treated as a whole and the aim of therapy is to restore harmony to the functions of the body. A mixture of various herbs is individually formulated for a patient, making it difficult to undertake randomized, controlled trials. Two randomized, placebo-controlled crossover trials were performed in England to study the effects of standardized oral herbal TCM in the treatment of atopic dermatitis cases for which traditional Western therapy had failed. The investigators were aided by a Chinese physician who created a standardized mixture of 10 herbs useful for treating atopic dermatitis characterized by erythema, lichenification, and plaques of dermatitis in the absence of active exudation or clinical infection.

The 10 herbs used were *Potentilla Chinensis*, *Tribulus terrestris*; *Rehmannia glutinosa*, *Lophatherum gracile*; *Clematis armandii*, *Ledebouriella saseloides*, *Dictamnus dasycarpus*; *Paeonia lactiflora*, *Schizonepeta tenuifolia*; and *Glycyrrhiza glabra*. These herbs were placed in sachets and boiled to make a decoction that was orally administered daily as a tea. The placebo consisted of a decoction made from several herbs with similar smells and tastes that have no known efficacy in the treatment of atopic dermatitis. The first study with 37 children demonstrated a median decrease in erythema score of 51.0% in the treatment group compared with only a 6.1% improvement in the placebo group. The percentage surface involvement also decreased by 63.1% and 6.2% for the herb-treated and placebo groups, respectively. In this initial study, no serious adverse effects were found.

These 37 children were offered continued treatment with the TCM herbal mixture and were then followed up for 1 year. Eighteen children completed the year of treatment and showed 90% reduction in eczema activity scores. The children who withdrew from the study did so because of lack of further response to treatment, unpalatability of the tea, or difficulty in preparation of the treatment. By the end of 1 year, seven patients were able to discontinue therapy without relapse. Asymptomatic elevation of aspartate aminotransferase level was noted in two patients, the levels returning to normal after discontinuing treatment. No serious adverse effects were observed. The design was similar in the other study that involved 31 adult patients with atopic dermatitis. The decrease in erythema and surface damage was statistically superior in the herb-treated group compared with the placebo group. There was also subjective improvement in itching and sleep. These patients also were followed up for 1 year, with reports of continued improvement and no serious adverse effects, although the patients who discontinued treatment noted a relapse in their condition. Although the sample sizes were limited, initial results were promising for patients for whom standard therapy had failed. The main limiting issue seemed to be the taste and the preparation of the decoction. It should be emphasized that although no serious adverse effects were noted in this study, careful monitoring of complete blood cell count and liver function is recommended, as liver failure and even death have been reported with these TCM herbs when baseline laboratory values were not followed. It is known that the specific herbs used in these studies have anti-inflammatory, antibacterial, antifungal, antihistaminic, immunosuppressant, and corticosteroid-like effects. A few of the ingredients are also smooth muscle relaxants, and inhibit the platelet-activating factor.

C. Jewelweed

Jewelweed (*Impatiens biflora*) is alleged to be useful topically for treating poison ivy contact dermatitis, but research results are conflicting. In one study, treatment with jewelweed was found to be comparable with standard treatment for poison ivy contact dermatitis, and in 108 of 115 patients studied, the symptoms cleared within 2–3 days. However, in another study, jewelweed extract failed to decrease symptoms of poison ivy dermatitis. In yet another study, no prophylactic effect of jewelweed in treating poison ivy dermatitis was reported. Jewelweed has been said to be most effective if applied to the area where the poison ivy touched as soon as possible after contact, but this aspect was not addressed by the aforementioned studies. There have been no reports of topical jewelweed causing adverse effects.

Several herbs contain a substance called “mucilage,” which is useful topically to soothe and act as an emollient on skin. Heartseases (*Viola tricolor*), marshmallow (*Althea officinalis*); English plantain (*Plantago lanceolata*), fenugreek (*Trigonella foenum-gaecum*), mullein (*Verbascum thapsus*), slippery elm (*Ulmus fulva*), and flax (*Linum usitatissimum*) contain mucilages, which act as emollients on and soothe the skin. Mucilage quickly swells into a gooey mass when exposed to water, thereby ameliorating dry or mildly inflamed skin. Mucilage also dries as a mild adhesive and can be used as an herbal bandage for minor wounds.

D. Oats

Oats (*Avena sativa*) have been used topically in baths for hundreds of years for their soothing and antipruritic properties, and they are approved for this use by the German regulatory authority Commission E and are listed

as Class 1. Colloidal oatmeal turns to a gooey sticky mass when mixed with liquid which can be used to coat the skin and sealing in moisture. This soothing and moisturizing property is attributed to the gluten content of the plant. This can be useful in treating atopic dermatitis as well as idiopathic pruritus of the elderly.

E. Pansy flower

Pansy flower (*V. tricolor* hybrids) infusion is recommended as a nontoxic treatment for seborrheic dermatitis, especially in infants. The infusion is made by mixing 1–2 tsp of flowers per cup of water and is used as a wet dressing. Salicylic acid in concentrations of about 0.3% appears to be the active ingredient. It also contains saponins and mucilage, which have softening and soothing effects. No adverse effects have been reported with topical use. In treating dermatitis, tannins used topically act by coagulating the surface proteins of cells and exudates, thereby reducing permeability and secretion. The precipitated proteins also form a protective layer on the skin. Tannins may also have antimicrobial properties.

F. Tannins

Tannins found in agrimony (*Agrimonia eupatoria*), jambolan bark (*Syzygium cumini*), oak bark (*Quercus robur*), English walnut leaf (*Juglans regia*), Labrador tea (*Ledum groenlandicum*); goldenrod (*Solidago* spp.), lady's mantle (*Alchemilla* spp.), lavender (*Lavandula angustifolia*), mullein (*Verbascum thapsus*), rhatany (*Krameria* spp.), Chinese rhubarb (*Rheum officinale*), yellow dock (*Rumex crispus*), witch hazel bark (*H. virginiana*), and St. John's wort (*Hypericum montana*), act as astringents. Oat straw (*A. sativa*) included in is also approved for its soothing and antipruritic qualities. One study showed that a witch hazel extract in a phosphatidyl choline base was less effective in reducing erythema from ultraviolet (UV) radiation and cellophane tape stripping in 24 healthy patients than 1% hydrocortisone. In another clinical trial, one group with atopic dermatitis (n = 36) and another group with contact dermatitis (n = 80) compared witch hazel extract with control. In the atopic group, the witch hazel was slightly superior in reducing inflammation and itching. There are also anecdotal reports of witch hazel's usefulness in treating atopic dermatitis.

XI. Effective Home Remedies to Treat Allergic dermatitis

Most types of skin allergies produce symptoms that can be treated with one of these natural cures. Depending on the underlying condition, some would work better than the others.

A. Apple Cider Vinegar

Apple cider vinegar is a wonder cure for many ailments. It has plenty of acetic acid which has strong antimicrobial and anti-inflammatory properties. These two combined can help treat rashes involved in many types of skin allergies. Mix one cup of warm water with a tablespoon of apple cider vinegar. Stir well and soak up some solution with a cotton ball. Dab the solution on the affected area and let it dry. Wash it after 15 to 20 minutes with clean water. Repeat twice a day until it heals.

B. Aloe Vera

Aloe vera is really very good when it comes to skin problems it is rich in properties which are good and effective for itchy skin or on redness / rashes due to its anti-bacterial, anti-inflammatory and anti-fungal property

it acts as a moisturiser and works as a skin soothing agent. It provides relief from itching and rashes all you have to do is apply the gel of Aloe Vera on the affected area. Cut the leaf from the plant with the help of knife peel the leaf and take out gel with the spoon and apply it on the affected area. This will surely provide you relief. So Aloe Vera comes on top in the list of Herbal remedies for skin allergy. Aloe vera gel is used in many natural healing



Fig. 8 Aloe Vera Gel used in Allergic Dermatitis



Fig. 9 Various Home remedies of Allergic Dermatitis

preparations because of its medicinal and anti-inflammatory properties. It speeds up the recovery process and offers soothing relief, making it one of the best remedies for skin allergies on the body. Extract one teaspoon of the gel from the leaf or scoop one teaspoon of gel from a purchased aloe vera product. Spread the aloe vera gel directly on the area affected by the allergy. Let it stay on for about 30 minutes before washing. Apply this remedy thrice a day for a few days.

C. Coconut Oil

Coconut oil is one of the safest home remedies for skin allergies in babies and children. It has moisturising properties, thanks to its medium-chain fatty acids which are helpful for dry, scaly skin allergies. It also has anti-inflammatory and analgesic properties which make it a wonderful remedy for many skin conditions. Warm a teaspoon of virgin coconut oil and apply it over the affected area. Leave it in place for about 30 minutes. Wash it with warm water and pat the skin dry. Repeat this 3 to 4 times a day until the rash heals.

D. Peppermint Oil

The presence of menthol in peppermint oil exhibits anti-inflammatory properties which can give immediate relief when applied over a painful or itchy rash. Mix several drops of the peppermint oil with a teaspoon of the carrier oil. Apply the mix directly over the affected area. Leave it on the skin for 40 to 60 minutes before washing it off. Repeat the procedure 3 to 4 times every day.

E. Tea Tree Oil

Tea tree oil is widely used to naturally treat many skin conditions, thanks to its medicinal properties. The oil is anti-inflammatory and antimicrobial in nature which gives immediate relief from a rash and prevents additional infections. Add the tea tree oil to a teaspoon of carrier oil and mix well. Apply the mixture directly over the affected area on the skin. Let it stay for 45 to 60 minutes before washing it off. Repeat this routine thrice or four times a day for relief.



Fig. 10 Tulsi used in treatment of Allergic Dermatitis



Fig. 11 Ginger used treatment of Allergic Dermatitis

F. Tulsi (Holy Basil)

Tulsi leaves are rich in thymol, eugenol and camphor it is considered as very effective on rashes and itching caused due to skin allergy. Follow this simple method, wash a few leaves and rub them over the affected area, you can also boil the leaves and apply the water with the help of cotton or cloth on affected area. In the case of rashes mix the leaves with 2 spoons of olive oil, 2 crushed garlic cloves, a pinch of salt and pepper and apply the mixture over the area. So Tulsi is also best Herbal Remedy for skin allergy. The medicinal properties of tulsi have long been known in India. It exhibits broad-spectrum antimicrobial properties that can effectively protect the skin from infections. It also has anti-inflammatory properties that reduce swelling and itchiness, making it effective in getting rid of skin allergies naturally. Pick a handful of tulsi leaves and wash them thoroughly. Grind the leaves in a blender until the consistency is fine. Apply the paste over the affected area. Leave it on the allergy-affected region for about 30 minutes before washing it off. Repeat the routine few times a day for relief.

G. Neem

Neem is another popular herb used extensively in India for its medicinal properties. It can alleviate redness, swelling and itching due to its anti-inflammatory properties. Neem is also a natural antihistamine, which is why

it is used in home remedies for skin allergies on the face. Grind the neem leaves in a blender until the paste has a fine consistency. Apply the paste over the affected area and leave it on for 30 minutes. Wash the paste clean and repeat it 3-4 times a day until you see improvement.

H. Ginger

Ginger possesses antimicrobial and anti-inflammatory properties which work well in treating different types of skin allergies. Grate the slice of ginger and add it to a cup of water. Boil the mix in a saucepan and allow it to simmer for 5 minutes. Strain the ginger liquid and allow it to cool. Apply the liquid with a cotton ball on the affected area. Wash it off after 30 minutes and repeat it 3-4 times a day.



Fig. 12 Almond Leaf used in treatment of Allergic Dermatitis



Fig. 13 Lemon used in treatment of Allergic Dermatitis

I. Almond Leaf.

Almond leaves are also very helpful when it comes to reducing rashes. Crush some almond leaves and then apply them on the affected part in order to get rid of rashes. So Almond Leaves is also useful for skin allergy

J. Cinnamon.

Take 1 teaspoon of cinnamon powder and add the teaspoon of lemon juice. Apply it over the rashes and let it remain for about 15 minutes. After this wash it off with the lukewarm water. This is the most effective remedies for treating the facial rashes. So you can also use the Cinnamon for skin allergy.

K. Lemon:

Lemon is the rich source of vitamin C and proved to be the best solution for itchy skin or rashes. You just need to apply the juice of the lemon on itchy area and even on rashes for 8-10 min then wash it off. So the lemon also come in the list of herbal remedies for skin allergy.

XII. Conclusion:

Medicinal plants have a great potential to cure different diseases. Many people worldwide use various plant based products for treating skin problems. These herbs are a rich source of active ingredients and can be safer and more cost effective for the treatment for different skin diseases. Inflammation is a complicated process, necessary for the host defense system. Extreme production of some inflammatory mediators may cause chronic diseases. Plant raw substances can possess an anti-inflammatory action affecting different stages of the inflammation process. They inhibit formation of cytokines and eicosanoids, stop the inflammatory reaction cascade from starting, and reduce skin burn, itching or extreme exfoliation. The use of most herbs in treatment of inflammatory skin diseases is based on clinical and pharmacological trials *in vitro* and experiments *in vivo*. However, the use of some of them is based only on their longstanding traditional application in folk medicine. Though these herbs are generally safe to use on the skin, some people can be allergic or sensitive to certain plants, which can cause irritant contact dermatitis or allergic reactions. We constantly need to test new ingredients out before integrating them into any type of skin care regime. Many herbal therapies have been used for centuries, which show good anecdotal results. A few randomized, controlled trials have also demonstrated significant results in the use of herbal therapies for the treatment of dermatologic disorders.

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