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DERMATITIS UNDER THE LENS: HOMEOPATHY'S ROLE IN SKIN HEALTH

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ABSTRACT

Dermatitis is described as a local inflammatory condition of the skin. The symptoms include rash, redness, itching, eruptions, and, in some cases, discharges. The article deals with a subtype, Contact Dermatitis, caused by direct or indirect skin contact with some allergen or irritant. Homoeopathy offers a wide range of treatments based on the appearance of the skin, modalities, mentals, physical makeup, and constitution.

KEYWORDS: Dermatitis, Allergic, Irritant, Homoeopathy.

I. INTRODUCTION

Dermatitis, or eczema, is a non-contagious skin inflammation encompassing a range of pruritic inflammatory conditions distinguished by manifestations such as erythema, scaling, edema, vesicle formation, and exudation.[1] Although the terms "dermatitis" and "eczema" are frequently used interchangeably, some individuals utilize "dermatitis" to encompass all forms of cutaneous inflammation. Consequently, all eczema cases qualify as dermatitis, but not all incidences of dermatitis fall within the eczema classification.[2]

Dermatitis or eczema is classified as either endogenous or exogenous in ICD-11. This article concerns contact dermatitis, categorized as an exogenous form of dermatitis.

Contact Dermatitis: A direct skin reaction to toxic chemicals in the environment is contact dermatitis, which is an inflammatory skin reaction. Without being exposed to chemicals in the environment, it won't develop. On the contrary, contact dermatitis occurs in only a portion of people exposed to the same external stimuli. There are a few other cofactors engaged as well. The disease is complex since it is influenced by genetic predisposition and environmental factors.[3]

II.ETIOLOGY

1. METALS- Common allergens are nickel, mercury, and palladium. Among these, Nickel is the most common allergen, which is more prevalent among women, perhaps due to more exposure to jewelry.
2. RUBBER- Rubber gloves are a significant cause of occupational ACD among workers.
3. HAIR DYE & TEMPORARY TATTOO – The Chemical P-Phenylenediamine (PPD) is frequently used as a permanent hair coloring agent and in henna tattoos.
4. PRESERVATIVES – Chemical preservatives added to cosmetics, moisturizers, and topical medications are significant causes of ACD.
5. FRAGRANCES- Linalool is a common organic compound found in fragrances. It is not allergic in pure form, but it is a common cause of ACD when oxidized.
6. PLANT SPECIES- Several plant species, e.g., Chinese hibiscus, have been shown to cause ACD.

Unlike Allergic CD, Irritant dermatitis is a nonimmunologic inflammatory reaction that does not require prior sensitization and occurs in response to a wide range of irritants, i.e., physical, chemical, or mechanical.[4]

III.EPIDEMIOLOGY

3.1 Distribution: Based on several variables, these clinical aspects of contact dermatitis may exhibit particular characteristics[5]

- Age: Each age group is exposed to chemicals in the environment differently;
- Sex: women are more likely than men to develop allergic contact dermatitis and irritant contact dermatitis; this could be due to the different ways that women are exposed to challenging substances;
- Specific predisposition: genetic factors play a unique role in the development of irritant-type reactions (atopy);

- Co-morbidities: Patients with acute or debilitating diseases (AIDS, autoimmune disorders, cancer, Hodgkin disease, lymphoma, etc.) have a lower risk of developing contact dermatitis because their immune responses are reduced or Absent.
- Regional factors, such as skin integrity, occlusal variables, and anatomical region, play crucial roles in determining the onset and clinical features.
- Seasonal Distribution: Risk of contact with allergens significantly increases in summers as compared to other seasons
- Demographic distribution: Both urban and rural populations are equally affected.[5]

3.2 Incidence & Prevalence

1. General: Contact dermatitis, including irritant and allergic types, varies widely in incidence. In Europe, the rate is about 13 per 1,000 person-years, while in India, it was 28 per 1,000 in 2017.[6] In Europe, contact allergies affect roughly 20% of the population, while 1-2% are in India. Other Asian nations also report significant rates.[7] For example, about 2.5% of Japan's population is impacted. In China, the disease burden is significant among young children, with the highest rate among those under five. Additionally, a 2017 study found that over 36.7 million Indians suffer from contact dermatitis.[8][9]

2. Occupational- Occupational contact dermatitis is more prevalent in several work categories. Because they are frequently exposed to possible irritants and allergens, workers in the healthcare, hairdressing, and construction industries, for example, have higher prevalence rates. Depending on the employment and degree of exposure, prevalence rates in the working population might vary from 10% to 40%.[10]

IV.CLASSIFICATION: Based on Etiopathogenesis, contact dermatitis is divided into

1. Allergic Contact Dermatitis (ACD)
2. Irritant Contact Dermatitis (ICD)

V. PATHOPHYSIOLOGY

A) ICD: Any substance that causes cellular disruption at a strong enough concentration is considered an irritant. Some chemicals have irritant qualities; other factors like temperature, airflow, low humidity, and skin barrier malfunction can contribute to irritation. Dermatitis can develop without prior sensitization and is triggered when a chemical's penetration causes an inflammatory reaction or weakens the skin's defense system.[2]

B) ACD: It is a classic example of a type IV, cell-mediated delayed hypersensitivity reaction.

It occurs when a genetically sensitive individual is exposed and sensitized to an environmental allergen, followed by re-exposure that triggers a complex inflammatory response. Allergic contact dermatitis involves two main processes: sensitization (induction or afferent limb of sensitivity) and elicitation (or efferent limb) of contact dermatitis. It differs from ICD, where no prior sensitization is required.[2],[11]

VI. CLINICAL FEATURES

1. Gender: Allergic contact dermatitis is more common among women than men due to exposure to household allergens, with hands being a common site of involvement in women.
2. Age: Both children and adults are equally affected, with the exception of babies. Multiple studies confirm that older adults are more susceptible to allergic CD.

People with dark complexions are more susceptible to Allergic CD, while Irritant CD is more common among individuals of Asian descent compared to Caucasians.

Eczematous dermatoses have various clinical manifestations, including

- Itching
- pain
- dryness
- erythema
- excoriation
- exudation
- fissuring
- hyperkeratosis
- lichenification
- papulation
- scaling, and
- vesiculation

These clinical manifestations are histologically represented by different epidermal alterations, such as spongiosis (epidermal edema) with varying degrees of hyperkeratosis, acanthosis, and a dermal infiltrate of lymphohistiocytes.

VII. DIAGNOSIS

1. Patch Test: This is the gold standard for diagnosing Allergic Contact Dermatitis. It involves applying an antigen to the skin at standardized concentrations using an appropriate vehicle and occlusion. The test has a sensitivity and specificity between 70% and 80%.[12]

2. Photopatch testing: In the case of photoallergic contact dermatitis, the intervals for irradiation and the dose of UVA can vary from center to center.

3. Open Patch test: The open patch test is often used when evaluating possible irritants or sensitizers. It also helps in studying protein contact dermatitis and contact urticaria. The forearm is commonly used for the open patch test, and the site should be evaluated frequently for the first 30 to 60 minutes. A follow-up reading should occur after three to four days.[13]

VIII. MANAGEMENT

A) In Cases of occupational dermatitis, visit the workplace and assess

- Identifying which allergens need to be taken into consideration;
- Identifying allergens that are hidden after a negative patch test;
- Provide insight into why a patient has not responded to avoidance of an allergen or irritant;
- Evaluating work environment procedures and identifying potential areas of contamination or accidental exposure; and
- Preventing further needless exposure to irritants

B) In cases of irritant contact dermatitis, the basic management involves protecting oneself from allergens.

C) Avoidance: Avoiding the irritants/allergens is basic prevention.

D) Substitution: If possible, replace with non-irritant products.

E) Topical steroids, soaps, and emollients are widely used.[13]

IX. HOMOEOPATHIC MANAGEMENT

The role of the homeopathic physician is paramount in addressing cases of contact dermatitis. A comprehensive review of the patient's medical history is essential to confirm the diagnosis and, if deemed necessary, to administer a patch test. Following this, identifying the causative factors, including but not limited to plants, cosmetics, attire, pharmaceuticals, industrial, and occupational agents, is imperative.

In conducting case assessments, it is essential to view the following points as constructive steps:

1. Provide a well-detailed description of the current lesion, such as vesical erythema.
2. Carefully note any abnormal sensations, such as burning or itching.
3. Consider the impact of thermal modalities on the condition.
4. Explore various aggravating and ameliorating factors of the symptoms.
5. Develop a comprehensive understanding of the patient, including their mental and emotional state and accompanying symptoms.
6. Endeavor to eliminate any triggering causes to facilitate a permanent cure.

Despite the use of carefully chosen homeopathic medicine, the patient's lack of improvement or cure may be influenced by the following conditions:

a) India's tropical climate is characterized by heat and humidity.

b) Prevalent unhygienic conditions or other contributing factors.

Below are a few remedies that have marked action on the skin

1. Aethiops: Condition presents with eczematous lesions that are tender to the touch and accompanied by intense itching. It typically occurs in individuals with a syphilitic or scrofulous diathesis, leading to rapid suppuration and thick scabs.[1]

2. Anacardium: Affected skin appears bright red and is accompanied by intense itching and a burning sensation, typically from evening to midnight. Initially, scarlet red rashes with small blisters and unbearable itching develop, slowly transitioning into a thick yellow crust. Persistent scratching exacerbates the itching. This remedy is also indicated when skin ointments relieve skin symptoms.[1],[14]

3. Anagallis: Known for its dry, bran-like tetters in rings, accompanied by intense itching. According to Boericke, this condition typically affects the palms, fingers, and face. Vesicles are sometimes seen, often accompanied by a tingling sensation.[14]

4. Apis: The rash caused by Apis looks fiery red, and the patient often rubs the affected area vigorously due to the stinging, burning, and smarting sensation. The symptoms are worse in the evening, at night, and with warm applications and better with cold applications and in open air. According to Clarke, the burning symptoms of Apis can be distinguished from those of Arsenicum by being aggravated by heat.[1],[15]

5. Arsenicum Album: The rash is typically dry with skin that resembles parchment, rarely moist, and is accompanied by intense burning. It commonly affects the face, legs, and genitals. Itching is not a prominent symptom. The skin is easily prone to bleeding and is covered with crusts. Patients have symptoms worsened from scratching and cold. Radiated heat and open air are unpleasant.[14]

6. Alumina: As per Kent, Alumina skin withers, becomes dry, and is subject to eruptions, ulcerations, cracking, and bleeding. The itch worsens from the warmth of the bed, and the patient scratches till it bleeds and gets relief. For such cases, Kent says that as soon as healing begins, the itching starts.[1],[16]

7. Anthracokali: Characterized by Papular-like eruptions with a vesicular tendency, especially on the scrotum and in the hands, tibia, shoulder, and dorsum of feet. Itching Appears during the night and disappears in the daytime.[1]

8. Bovista: When the skin is irritated by repeated washing, it Affects the back of hands (baker's and Grocer's itch), Mouth, Nostrils, and Bends of Elbows and knees. Eruptions are moist and vesicular, forming thick scabs or crusts.[1]

9. Comocladia: Appears on extremities, around eyes. There's redness and itching all over, and multiple pustules form. Itching is worse by warmth at night and better by scratching and in the open air. Indicated in cases recurring periodically.[1]

10. Cantharis: Affected areas are the scalp, genitals, and extremities. It begins in a small spot and then involves a larger area. There's a watery discharge underneath the scalp. Itching presents with intense burning <warmth >cold application.[1],[14]

11. Chrysarobinum: Ears, eyes, legs and thighs. Dry Scaly eruptions with scabs and pus from the vesicles, a foul-smelling discharge with crust formation.[1],[14]

12. Dulcamara: Scalp, cheeks, forehead, chin, extremities. Itching vesicles that pass into suppuration and become covered with thick brownish or yellowish scabs. Itching followed by scratching and bleeding.[1],[16]

13. Euphorbia Lathyris: Starts from the face and spreads all over the body, characterized by itching, burning, and smarting sensation.[15]

14. Fagopyrum: Eruptions appear over knees, elbows, and hairy parts and are of vesicular or pustular type. There's intense itching, relieved by bathing in cold water, worse by scratching, touching, and retiring.[1][14]

15. Graphites: Folds of skin, Vertex, scalp, ears, extremities, around the anus. Eczema is humid and scurfy, forming a dirty crust that oozes an acrid and gluey discharge. Eruptions bleed easily on scratching.[1]

16. Hepar sulph: Affected areas are the Scalp, genitals, folds of the scrotum, and thighs. There's a foul, moist eruption, which tends to ulcerate; they are sore and susceptible to touch. Itch violently on rising from bed. The discharges are thin, acrid, and offensive.[1][14]

17. Juglans-regia: Affected regions are the lower extremities, sacrum, and hands. Itching is associated with burning and redness. Eczema simplex is on the upper chest, and itching and pricking are present when heated, especially by over-exertion.[1]

18. Kalium Arsenicosum: Produces dry, scaly eczema, affecting arms and knee bends—severe itching< walking and undressing.[14]

19. Lappa Arcticum: Head and Face. Moist eruptions oozing foul discharges. Formation of grayish-white crust with destruction of the hair in the surrounding part.[14]

20. Merc solubis: Moist eczema. Eruptions are humid, fetid, thick, yellowish, or crusts that form on the scalp. Vesicular and pustular eruptions. These eruptions are surrounded by irregular margins. Itching is worse by the warmth of the bed, with pain from scratching and a tendency to bleed.[1][15]

21. Mezereum: Eruptions appear on legs, arms, or areas with poor circulation, like ears, wrists, and backs of bands. Presents as vesicular with itching and burning like fire; dries into crust and then disappears; a new crop appears in the same place or nearby. Discharges are thick, white, and offensive. Indicated, especially in cases where eruptions are suppressed using ointments.[16]

22. Mancinella: There's Dermatitis with excessive vesiculation, serous and sticky discharges, and crust formation.[1][14]

23. Rhus Toxicodendron: Affected sites are the Genitals of both males & females and the Lower extremities. Eruptions are moist, itch intolerably, and burn violently.[1][16]

24. Rhus Venenata: Vesicular eruptions appear on the forearm, wrist, Back of hands, between and on fingers. Itching is nocturnal, worse in a warm room and bed; after scratching and rubbing, it is relieved by hot water.[15]

25. Xerophyllum: Dermatitis, esp. around knees; skin appears rough and cracked and feels like leather; the eruptions are vesicular with intense itching, stinging, and burning.[15]

CONCLUSION

Homeopathy offers a personalized approach to the treatment of contact dermatitis, taking into account an individual's unique, rare, and peculiar symptoms, as well as their medical history and overall constitution. A comprehensive case assessment enables identifying triggering factors and the evaluation of the patient's mental and physical well-being, ultimately facilitating a cure. According to H.A. Roberts, it is essential to remove obstacles to cure from the patient's end in cases of occupational dermatitis to achieve the highest level of recovery. Additionally, identifying and avoiding allergens play a crucial role in treating allergic dermatitis. Homeopathy provides a holistic approach to contact dermatitis to prevent future recurrence. This article delineates several commonly employed remedies for dermatitis, emphasizing the necessity of continued research and clinical practice for refining these approaches and enhancing patient outcomes.

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