

Review Article

Utility of Sulphur in Homoeopathic Management of Tinea Corporis

Dr. Govind Thote* and Dr. Aiman Ansari

Guru Mishri Homoeopathic Medical College and PG Institute, Shelgaon, Jalna, India (MS)

ABSTRACT

“Skin disease- an outer expression of inner disturbance” The skin is the mirror of the organism’s functioning, its colour, texture, dryness & every one of its other aspects, reflect our mental state & our deeper sensation. We blanch with fear & turn red with embarrassment. Our skin tingles with excitement & feels numb with shock, it is a mirror of our state. Tinea corporis is considered to be a superficial skin infection by fungi known as dermatophytes. Dermatophytes are among the common fungal agents implicated in superficial skin infection. This disease is associated with cosmetically disfiguring skin disorders because of which individual experience considerable psychosocial rejection, which is mainly determined by feeling of the stigma due to their skin disorders. Because of the new trends of high cosmetic practice, psychological effects & high morbidity in terms of loss of working days, treatment of dermatophytic infection is a public health problem. Homoeopathy has got a wider scope in treating this disease condition with less suffering and less complications, Hence this study is done to understand the effectiveness of homoeopathic treatment in Tinea corporis. In homoeopathy we treat the patient in a holistic manner, here medicines are known to rarely produce side effects and are also cost effective and safe in administration. In these cases homoeopathy has always offered a safe and significant results in controlling the infections of cutaneous disorders.

Keywords: Dermatophytes, Obstacles, Prevention, Homoeopathic management



Address for Correspondence:

Dr. Govind Thote

Department of Medicine
Guru Mishri Homoeopathic Medical College and
PG Institute,
Shelgaon, Jalna, India (MS)

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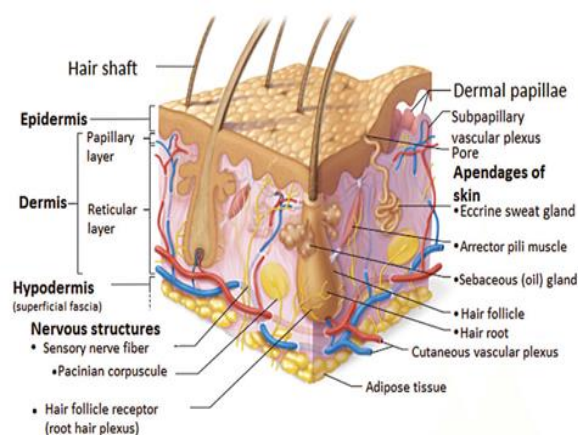
INTRODUCTION

Skin is the largest layer of the body, the outer most covering of the body. It is not uniformly thick. At some places it is thick & at some places it is thin. The average thickness of the skin is about 1 to 2 mm.

Epidermis is the keratinising stratified squamous epithelium that covers the body. Under it lies the dermis & the subcutaneous fat [hypodermis].

EPIDERMIS: Epidermis provides a tough, dry & semipermeable covering of the body. It does this by producing a protein called keratin. Hence, epidermal cells are known as

keratinocytes.



DERMIS: The dermis is made up of reticular dermis, which forms the substance of the skin, and the adventitial dermis. Adventitial dermis houses vascular & neural plexuses.

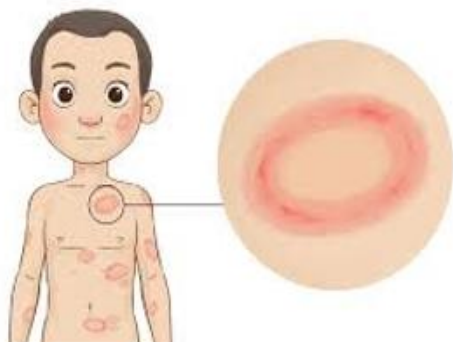
CUTANEOUS

APPENDAGES:

Folliculosebaceous Units, Apocrine Sweat Units, Eccrine Sweat Units, Nail Unit.

HYPODERMIS [Subcutaneous Fat]: This is arranged as fat lobules that contain individual fat cells [adipocytes] surrounded by rich vascular plexus.

TINEA (DERMATOPHYTOSIS)



Dermatophytes inhabit the non-living, cornified layer of the skin, hair and nail because of its warm, moist environment conducive to fungal proliferation. Fungi may release keratinases & other enzymes to invade deeper into the stratum corneum, although typically infection is limited to the epidermis and at times its appendages.

They generally do not invade deeply, owing to non-specific host defence mechanisms.

In response to the infection the active border has an increased epidermal cell proliferation which results in scaling.

Different types of Tinea

According to the site of affection dermatophytosis is classified into:

- | | |
|-------------------|----------------------|
| 1. Tinea corporis | 7. Tinea unguium |
| 2. Tinea cruris | 8. Tinea faciei |
| 3. Tinea capitis | 9. Tinea incognito |
| 4. Tinea barbae | 10. Tinea versicolor |
| 5. Tinea pedis | 11. Tinea nigra |
| 6. Tinea manuum | 12. Tinea imbricata |

Tinea corporis

Epidemiology of dermatophytosis: Dermatophytosis are the most common agents of superficial fungal infections worldwide and widespread in the developing countries, especially in the tropical and

subtropical countries like India, where the environmental temperature and relative humidity are high.

Pathogenesis of dermatophytosis

Genetics of dermatophytosis:

The pathogenesis of dermatophyte infection involves complex interaction between the host, agent and the environment. The factor which predisposes to such an infection are underlying diseases such as diabetes mellitus, lymphomas, immunocompromised status, or cushing's syndrome, older age, which could produce severe, widespread or recalcitrant dermatophytosis.

Some areas of the body are more susceptible to the development of dermatophyte infections such as intertriginous areas (web spaces and groins) where excess sweating and alkaline pH favours the growth of the fungus.

Immunology of dermatophytosis: The immune response to infection by dermatophytes ranges from a nonspecific host mechanism to a humoral and cell-mediated immune response. The currently accepted view is that a cell-mediated immune response is responsible for the control of dermatophytosis.

Innate immune response: Dermatophytes contain cell wall carbohydrate molecules (Beta-glucan) that are recognized by innate immune mechanisms, such as Dectin-1 and Dectin-2, which activate toll-like receptor 2 and 4 (TLR-2 AND TLR-4). Dectin-1 amplifies the production of tumor necrosis factor Alfa and IL-17, IL-6 AND IL-10, all of which stimulate the adaptive immunity. Keratinocytes in the presence of dermatophytes antigens, such as trichophytin, release IL-8, a potent neutrophilic chemo-attractant.

Adaptive immune response: Humoral immunity: Humoral immunity to dermatophytes is not protective. High levels of specific IgE and IgG are detected in patients with chronic dermatophytosis which is responsible for positive (IgE mediated) IH tests to Tricophyton on the other hand, IgG levels are low in patients that present positive delayed type hypersensitivity (DTH) skin test.

Clinical features of tinea corporis



A typical case has erythematous papules, tiny vesicles and pustules at the margins of a scaly variably pigmented patch. Secondary changes in this “active margin” may result in crusting, scaling and erosions.

Lesions subside centrally and progress peripherally to produce a ring like lesion, hence the name ringworm. It affects the waistline, axillae buttocks other parts of the trunk and extremities excluding palms and soles

Mode of transmission

Source	Mode of transmission
Human to human	By direct skin-to-skin contact with infected person.
Animal to human	Ringworm can spread while petting or grooming dogs or cats.
Object to human	by contact with objects or surfaces that an infected person or animal has recently touched or rubbed against. eg. clothing, towels, bedding and comb.
Soil to human	Infection would most likely occur only from prolonged contact with highly infected soil.

Based on different modes of transmission a physician can easily understand the different maintaining factors in the given case which will be helpful in management of the cases further.

Risk Factors

- Individuals who live in a warm climate
- Have close contact with an infected person or animal.
- Share clothing, bedding or towels with someone who has a fungal infection
- Participate in sports that feature skin-to-skin contact, such as wrestling.
- Wear tight or restrictive clothing.

Weak immunity

Obstacles in treatment of Dermatophytosis

Factors	Reasons
Decreased immunity	Individuals suffering from diabetes mellitus, HIV etc.
Treatment	Resistance to antifungal treatment
Environment	Warm moist environment
Socio-economic status	Lower socio-economic status
Drug	person undergoing chemotherapy, on corticosteroids and on immunosuppressants

DIAGNOSIS OF DERMATOPHYTOSIS:

Laboratory investigations:

Direct microscopic examination. Treatment of skin specimen with 10-20 % potassium hydroxide (KOH) is a quick and inexpensive bedside tool to provide evidence of dermatophytic infection. Positive scraping are characterized by presence of refractile, long, smooth, undulating, branching and septate hyphal filaments with or without arthroconidiospores.

Culture and antifungal sensitivity. Sabouraud dextrose agar (SDA, 4% Peptone, 1% Glucose, Agar, Water) is the most commonly used isolation media for dermatophytosis and serve as the medium on which most morphologic descriptions are based. Development of colony takes 7-14 days.

Dermatophyte identification: This can be based on colony characteristics, microscopic morphology, and physiologic tests.

Few physiological tests are available which help in confirmation of certain species.

In addition, special amino acid and vitamin requirements can differentiate Trichophyton species from other. Ability to hydrolyse urea differentiate T. mentagrophytes (urease positive) from T. rubrum (urease negative).

Preventions:

- Wear loose-fitting cotton clothes.
- Keep skin clean and dry.
- Don't share clothes, sports gear or towels.
- Wear slippers in locker rooms, in public pools and

Homoeopathic approach

Obstacles according to homoeopathic principles and philosophy

Obstacles according to homoeopathic principles and philosophy	
Aphorism 5	- Fundamental cause - chronic miasm eg- occupation, mode of living, social factors, age etc. - Maintaining cause - <i>causa occasionalis</i>
Repertory	Mechanical repertorisation -mostly direct towards polychrest remedies -If only one type of repertory is used then it gives only certain group of remedies -lesser-known remedies shows up very <i>occasionally</i>
Materia medica	Extensive data- difficult to remember
Case taking	Due to patient- aphorism 96 & 97 Hypochondriac, hypersensitive individual Due to physician- aphorism 74 Difficulty in understanding the altered image of disease Due to disease- aphorism 174 One sided disease

Homeopathic Perception of Tinea

Tinea is diagnosed through its manifestations on the skin which is in fact parasitic infection nurtured on the human body because of various internal and external environmental factors as stated below whereby the immunity finds itself inadequate.

Aphorism 5-

-Fundamental cause- chronic miasm
eg- occupation, mode of living, social factors, age etc.

-Maintaining cause- *causa occasionalis*

Hence, considering the above stated perception for the disease it requires holistic approach rather than just a local approach.

Homeopathic approach:

a. Holistic approach: In case study every aspect of the patient's life is included considering the age/gender, occupation, present history, past history, medication history, environmental factors etc

b. Individualistic approach: Patient presents with type of lesion, super added infection, discharges, past & present history of illness which differs in each individual hence making the approach individualistic.

c. Remedy selection as per law of similia: law of similars is the fundamental law in which system of homoeopathy rests, The exact similarity can be ensured only if the patient is observed making a special note of characteristic features that will separate it from another instance of the same disease.

Study of Miasm with regards to Tinea (Dermatophytosis):

Homoeopathic remedy

SULPHUR:

Constitution:

suites to lean, stoop-shouldered persons who walk and sit stooping; walk stooping like old men. Dirty, filthy people, prone to skin affections, aversion to being washed.

Temperament: Nervous temperament

Diathesis: Scrofulous diathesis

Spheres of action: Skin, sympathetic nervous system, venous capillary system, serous membrane, mucous membrane, portal system, lymphatics and blood.

Pathogenesis: subjected to venous plethora, it has portal stasis manifesting as redness at the muco-cutaneous junction, affecting the skin it causes heat and burning with intense itching.

Mental characteristics:

Very forgetful, difficult thinking

Delusion → thinks rags beautiful things-that he is immensely wealthy

Busy all the time

very selfish; no regard for others

Religious melancholy

Averse to business, loafs-too lazy to arouse himself.

Sulphur subjects are nearly always irritable, depressed, thin and weak, even with good appetite.

Physical general characteristics:

Relapses: Complaints that are continually relapsing; patient seems to get almost well when the disease returns again and again.

< Standing: Standing is the worst position for sulphur patients, they cannot stand, every standing position is uncomfortable.

Burning: Sensation of burning of skin of the whole body with hot flushes.

Redness: All orifices of the body are very red; all discharges are acrid, excoriating wherever they touch.

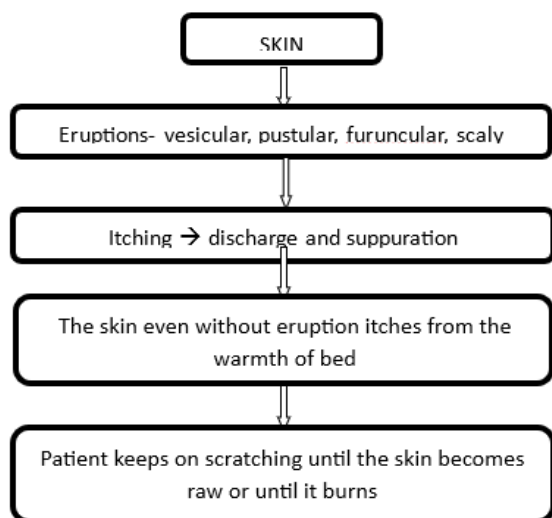
When carefully selected remedies fails to produce favourable effect.

< Bath: Aversion to being washed; always < after a bath.

Thermal modality- hot patient

Ailments from: Suppression of skin diseases, sun's heat, over exertion, alcohol etc.

Location: All sorts of eruption all over the body



Character of the eruptions: Dry, scaly, unhealthy with filthy odour. Excoriation especially in folds.

Boils coming in crops or a single boil is succeeded by another as soon as first is healed.

Discharges: Acrid and offensive

Modality:

Aggravation: < by warmth of bed, < washing, < covering, < at night, < changeable weather

Amelioration: >dry, warm weather

Concomitant: suppression of skin diseases causes diarrhoea

RUBRICS:

Skin; eruptions; herpetic; bran, like

Skin; eruptions; herpetic; burning

Skin; eruptions; herpetic; chapping

Skin; eruptions; herpetic; crusty

Skin; eruptions; herpetic; dry

Skin; eruptions; herpetic; itching

Skin; eruptions; herpetic; mealy

Skin; eruptions; herpetic; painful

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