

Dermatomycoses (Tinea) with reference to mandala kushta

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Abstract

Fungi, which are pathogenic for humans and affect the skin and diseases caused by them are known as dermatophytoses, or dermatomycoses. In ayurveda, all skin diseases has been discussed under the broad heading of kushta. Kushta means that which destroy with certainty and one which produces discolouration over skin region. The Mandala Kushta described in Maha kushta category and its signs closely resembles with that of mycotic infections. As per Ayurvedic line of management there are two lines of treatment-Shamana and Shodhana. These can be controlled by personal hygiene and supportive therapy to a great extent.

Keywords: Skin, Dermatomycoses, Kushta and Mandala kushta

Introduction

Skin is the soft outer covering of vertebrates. The skin interfaces with the environment and is the first line of defense from external factors. For example, the skin plays a key role in protecting the body against pathogens and excessive water loss. The exogenous etiological factors of skin diseases include physical, chemical, and bacterial stimuli and plant and animal parasites.

Among these plant parasites (pathogenic fungi) cause trichophytosis, microsporosis, favus and other dermatomycoses. Fungi are widely spread in nature. They parasitize in the soil, on plants, and in animals and man. Fungal skin infections are caused by different types of fungi, including dermatophytes and yeasts. Fungi, which are pathogenic for humans and affect the skin, are called dermatophytes, whereas the diseases caused by them are known as dermatophytoses, or dermatomycoses.

In ayurveda, all skin diseases has been discussed under the broad heading of *kushta* which are further divided into 7 *maha kushta* and 11 *kshudra kushta* for the purpose of diagnosis as well as treatment. The word *kushta* means that which destroy with certainty or which comes out from the inner part to the outer part. Also one which produces discolouration over skin region is said to be *kushta*. Causative factors for all skin disorders according to ayurveda are as follows:-Improper and irregular diet habits (Mithyahara vihara); Vitiating of the Biological forces (Dosha vaishamyan); Obstruction of the channels (Srotavarodham); suppression of natural urges (Vegadharana); Incompatible diet (Viruddhahara); Infections (Krimi); Emotional stress factors (Manovikaras)

According to Charakachrya due to these *nidana*, *tridoshas* vitiate simultaneous with the *sithilatha* of *dhatu*s. These vitiated *doshas* vitiate the *dhatu*s such as *twak*, *raktha* *mamsa* and *lasika* which are called *dushyas* in the *samprapti* of *kushta*. Thus the disease manifests. According to Vagbhata aggravated *doshas* get lodged in *tiryak siras* and vitiate the *dushyas*. This produce *sithilatha* in the *dhatu*s resulting in the manifestation of *kushta*.

Dermatomycoses

Epidemiologically fungal lesions can be classified according to

route of infection into two-Direct route (directly from a sick human or animal) & indirect route- (through various objects of sick persons, or objects used in the care of animals). According to the origin of disease superficial & deep fungal lesions are occurring. Keratinomycoses, Ring worm infections & Candidial infections are coming under superficial variety. Deep fungal diseases with involvement of the skin, mucous membrane and internal organs form the group of deep (systemic) mycoses. Among these fungal lesions ring worm (Tinea) infections are more prevalent in the present era.

Ringworm Infections

Three different types of fungi can cause this infection. They are called trichophyton, microsporum, and epidermophyton. It's possible that these fungi may live for an extended period as spores in soil. Humans and animals can contract ringworm after direct contact with this soil. The infection can also spread through contact with infected animals or humans. The infection is commonly spread among children and by sharing items that are unhygienic. They are contagious and widely spread in nature. Ringworm infection can affect both humans and animals. The infection initially presents itself with red patches on affected areas of the skin and later spreads to other parts of the body. The infection may affect the skin of the scalp, feet, groin, beard, or other areas. Symptoms vary depending on site where it is infected. Main features are as follows:-

- Red, itchy, scaly, or raised patches
- Patches that develop blisters or begin to ooze
- Patches that may be redder on the outside edges or resemble a ring
- Patches with edges that are defined and raised

Usually human ringworm causes dry scaling patches with a slightly nodular edge and a tendency to heal in the centre of the lesion. Common in hot/humid weather. Patches of ringworm may mimic eczema and in doubtful cases scrapings should be taken from the edge of the lesion. These are designated as Tinea followed by affected body part.

- T. cruris ('jock itch') - Groins, thighs, buttocks, scrotum
- T. corporis - Trunk, extremities (non-hairy surfaces – face, arms, legs, trunk)

- T. manuum - Palm
- T. pedis - (*Athlete's Foot*)—*Feet*
- T. capitis - Scalp
- T. barbae - beard
- T. unguium - Nails (Finger & toe nails affected).

Mandala kushta

The Mandala Kushta is a sleshma predominant disease and is described in Mahakushta category. According to symptomatology, Mandalakushta closely resembles the mycotic infections. In ayurveda only signs and symptoms are mentioned irrespective of site of lesion.

Clinical presentation of Mandala kushta is as follows: Red inflammatory spots appear first, later developing oedematous edges. These fixed circular raised patches connected with each other are known as mandala kushta. It is associated with intense itching and sometimes with oozing and worms. It is slow spreading in nature. As per Ayurveda causative factors and pathogenesis of all types' kushtas are similar. But their clinical presentation will be different according to dosha predominance.

Management

As per Ayurvedic line of management there are two lines of treatment-Shamana and Shodhana. Among Shodhana, vamana is considered best as mandalokushta is a kaphapradoshaja vyadhi. In this process morbid dosha the root cause of diseases are eliminated from main seat of lesion. Shamana therapy include both internal as well as external medication using kwathas, gutikas, tailas etc. according to the condition of the patient and illness. Also it is found that increased sweating make these conditions worse. In order to reduce the body temperature Avipathy choorna or Gudoochi satva can be taken internally. Nimbadi kwatha, Aragwatha kwatha, Gudoochyadi kwatha, Patolakaturohinyadi kwatha, Kaisora guggulu, Chandraprabha vati, Khadirarishtam, Aragwathasavam, Gandhaka rasayana, can be used internally. For external application Kimsukapatradi keram, Durvadi keram, Eladi keram etc. will be beneficial. Personal hygiene as well as day to day activities esp. dry the affected area thoroughly after washing is essential.

As per modern preview topical and internal antifungal treatment are put directly onto the affected area. There are a variety of treatments available in the form of creams, lotions, paints, shampoos and medicated powders. Major sources of ring worm infections are schools, military camps, prisons & Warm damp areas (e.g., tropics, moisture accumulation in clothing and shoes) & Animals (e.g., dogs, cats, cattle, poultry, etc.). These areas should be kept hygienic. Systemic broad spectrum antibiotics, corticosteroid therapy, Diabetic Mellitus, malignancies, obesity etc. are the predisposing factors of majority of fungal infections. Therefore proper management of the above conditions is necessary for the betterment of patient's condition.

As per Ayurveda nidana parivarjana is the basic treatment principle. Therefore avoid the causative factors and utmost care should be taken to protect the skin. Following measures can be adopted to reduce the risk of getting a fungal skin infection and avoid spreading.

- Dry your skin thoroughly after a bath.

- Wash socks, clothes and bed linen frequently to remove any fungi.
- Wear clean flip-flops or plastic shoes in damp, communal areas, such as showers, saunas and swimming pools.
- Wear loose fitting clothes that are made of cotton or a material designed to keep moisture away from the skin.
- Don't share towels, hair brushes and combs that could be carrying any fungi.

Protective measures

Proper intake of nutrients and adequate diet is most important for healthy skin. Ahara is first transferred to rasa dathu which in turn becomes the twaksara by the action of agni. Therefore a balanced healthy diet is important for good healthy skin. The following are some of the tips for making our skin healthy.

- Intake of 2 – 3 liters of water in regular intervals (hydrotherapy)
- Maintain regular food timings, better vegetarian.
- Maintain good hygiene.
- Regular exercise for at least 1 hour based on physical capacity.
- Have Sprouts, dates, vegetable or fruit juices in breakfast.
- Avoid excess salty, spicy, oily, sweets, junk foods and alcohol abuse.
- Daily use of ksheera and ghritha as rasayana.
- Use regular body massage (Abhyanga)
- Minimum sleep of 7-8 hours is mandatory.
- Avoid late night works (Jagarana)
- Follow some yogasanas to relieve mental tensions and to remove toxins
- Adopt holistic approach /practice positive thoughts.

Conclusion

Among fungal lesions ring worm infections are more common. These can be controlled by personal hygiene and supportive therapy to a great extent. Chances of recurrences are more in fungal lesions. Utmost care should be taken for skin protection.

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