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Short Communication

Role of patient education & counseling while treating superficial fungal infection

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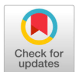

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ABSTRACT

The prevalence of superficial fungal infection has ascended in India over the past 6–7 years. Chronic, recurrent, relapse and steroid-modified tinea (tinea incognito) with nonresponse to the conventional treatment regimens are being commonly reported. Poor adherence to general measures, and non-compliance to treatment are important factors affecting the spread of infection and clinical presentation. The management of superficial fungal infection depends on general measures and medical management. Treatment strategies involve the use of systemic antifungals and/or topical antifungal agents. Treatment guidelines must be followed appropriately. Regular patient counselling and patient education are the deciding parameters for successful treatment of superficial fungal infection. Patients should be well educated about personal hygiene, clothing, skin care, corticosteroid abuse, adherence to general measures and compliance with treatment to ensure a successful treatment outcome.

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1. Introduction

Superficial fungal infections are responsible for approximately 25% of dermatophytoses worldwide., dermatophytes are the leading cause for superficial dermatophytosis and even more widespread in Asian countries such as India, where there is high temperature and relative humidity.[1]

Superficial fungal infections are usually caused by dermatophytes, non-dermatophytes, and commensal yeasts. Warm weather, humidity facilitates the growth of dermatophytes, and humidity can facilitate the penetration of the fungus. The problem has been worsened and perhaps even been caused by the widespread use of topical formulations containing a combination of antifungals, potent corticosteroids and antibiotics. Mostly such formulations are used as self-medication. Topical as well as systemic anti-fungal therapy along with proper and adequate patient education and counselling is extremely important while treating superficial fungal infection in country like India. Inadequate patient counseling is the most important cause of treatment failure.

2. Management of Dermatophytosis[1,2]

The management of superficial fungal infection depends on general measures and medical management. Treatment strategies involve the use of systemic antifungals and/or topical antifungal agents. Treatment guidelines must be followed appropriately.

3. Non-compliance to Antifungal Treatment[3]

As per the survey done by Inamadar et al. Overall, 70.5% of the participants (Dermatologist across India) responded that about that 20%–50% of their patients were noncompliant to the prescribed treatment. Lack

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of counseling to patient (5.5%), initial symptomatic relief (4.5%), drugs and duration of therapy (3.2%), cost of therapy (5.5%), and not following hygiene recommendations (3.2%) were acknowledged as individual factors responsible for noncompliance. However, a vast majority (78.2%) of dermatologists considered all these factors to be responsible for noncompliance.

4. Need of Patient Education[2,4]

To improve patient adherence and clinical outcomes, educating the patient in regional language incorporating patient education tips in the drug package, sending patient education videos, in clinic posters, and tele counseling program can be considered.

A combination of factors such as increased steroid usage, patient's nonadherence to treatment, change in the pattern of the dermatophytes, and environmental and lifestyle factors were reported as the key factors contributing for the increase of tinea infections. Poor compliance to prescribed medications and the duration is a major cause of treatment failure and re-infections. In the present KAP Study, the majority of dermatologists opined that noncompliance to prescribed antifungal therapy was about 30%–50% of their patients.

The association between patient knowledge and enhanced treatment outcome is well documented. Patient education and counselling leads to increase adherence to the therapy and definitely leads to compliance good which directly reflect on treatment outcomes.

4.1. Patients should be educated on the following:[4]

Personal hygiene is important to prevent the spread and persistence of dermatophytosis. People living in warm, humid climates are at greater risk of infection. After each shower, wipe the entire body surface, especially body wrinkles and crevices of the toes. Washing clothes and bedding in hot 60°C water and drying them in the sun can help prevent infection. Washing clothes in water at 60°C or higher will remove Trichophyton rubrum.

Ironing clothes can also help. It is best to avoid the use of wristbands, and threads that increase the risk of dermatophytes.

Patients should not share their clothes, towels, bed linen and soaps In addition, it is important to store and wash the clothes of patients with this disease separately to prevent the spread of the fungal infection. Regular mopping and cleaning can also help reduce the risk of dermatophytes in the environment.

The use of synthetic and tight clothing should be avoided. Tight, restrictive clothing can trap heat and moisture, creating a favorable environment for dermatophyte growth. Therefore, patients should be advised to avoid synthetic or tight-fitting clothing and prefer loose cotton clothing. Contact with pets should be avoided as they can be potential sources of fungal infection.

It is not recommended to use straps, cords, straps and rings, as they can carry fungal elements and lead to persistent and frequent infections. Comorbidities may predispose to treatment-resistant or recurrent infections. Weight loss in obese patients can help prevent recurrent infections, especially in the interbite area.

Corticosteroids in all forms should be avoided as they lead to unusual manifestations, diagnostic difficulties and treatment failures. Patients should be advised not to self-medicate and not to share their prescriptions. Simultaneous treatment of other infected household members and close contact is necessary.

Regular bathing helps in fungal load due to exfoliation of scales. Wiping the body dry (especially in body folds & intertriginous area and toe clefts) helps in minimizing chances of fungal colonization. Regular washing of clothes in hot water and drying in sunlight inside out leads to decreased chances of re-infection from infected clothes. To reduces chances of transmission to contacts and family members it is always advisable to stored and wash the clothes of infected patients separately.

5. Patient Follow-up[4]

Patients receiving systemic antifungals should be monitored regularly to ensure adherence and monitor therapeutic response.

The first follow-up visit should be at the end of 3 weeks to assess clinical response. If a partial response occurs (i.e, persistent pruritus and incomplete/minimal resolution of lesions), treatment should be continued and contributing factors reassessed. If there is no response, a change in antifungal agent should be considered. Regular follow-up should continue both during treatment and for at least 4 weeks after apparent clinical cure. Strict adherence to treatment Enhances chances of complete cure and reduces recurrence.[5]

6. Conclusion

To conclude, patients should be educated about personal hygiene, clothing, skin care, corticosteroid abuse, adherence to general measures and compliance with treatment to ensure a successful treatment outcome.

7. Conflict of Interest

None.

8. Source of Funding

None.

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References

1. Trailokya AA, Shirsat A, Madhu R, Shah B. Naftifine: A Topical Allylamine for Superficial Dermatophytosis. *J Assoc Physicians India*. 2023;71(5):11–2.
2. Rajagopalan M, Inamadar A, Mittal A, Miskeen AK, Srinivas CR, Sardana K, et al. Expert Consensus on The Management of Dermatophytosis in India. *BMC Dermatol*. 2018;18(1):6. doi:10.1186/s12895-018-0073-1.
3. Inamadar A, Rengasamy M, Charugulla SN. Treatment approach for superficial dermatophytosis infections and factors contributing for noncompliance to antifungal therapy in India: An epidemiological survey. *Clin Dermatol Rev*. 2022;6(1):15–21.
4. Rengasamy M, Shenoy MM, Dogra S, Asokan N, Khurana A, Poojary S, et al. Indian association of dermatologists, venereologists and leprologists (IADVL) task force against recalcitrant tinea (ITART) consensus on the management of glabrous tinea (INTACT). *Indian Dermatol Online J*. 2020;11(4):502–9.
5. Elman S, Hynan LS, Gabriel V, Mayo MJ. The 5-D itch scale: a new measure of pruritus. *Br J Dermatol*. 2010;162(3):587–93.

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