

# Efficacy of Topical Eberconazole in the Treatment of Tinea Cruris and Tinea Corporis

CHITRA NAYAK

**T**inea infections are the widely prevalent superficial fungal infections. Of these, the most common ones are tinea corporis, tinea cruris and tinea pedis. These infections are caused by organisms known as dermatophytes, with *Trichophyton rubrum* accounting for a majority of dermatophytosis, including tinea pedis, tinea corporis and tinea cruris.<sup>1</sup>

Several studies pertaining to the treatment of tinea corporis and tinea cruris have unravelled the effectiveness of topical antifungals.<sup>2</sup> The current case also shows the efficacy of a topical antifungal, eberconazole in treating a patient with tinea corporis and tinea cruris.

## CASE PRESENTATION

A 42-year-old married female presented with the chief complaint of itchy rashes in the groin and on the right thigh since 3 to 4 weeks.

## History

The patient had been diagnosed with relapsing polychondritis in the past and was treated with oral prednisolone 40 mg daily for 3 weeks, which was tapered slowly over a period of 3 months. She was also given tablet cyclophosphamide 50 mg once daily in the morning with instructions to have plenty of fluids. In addition, oral chymotrypsin and diclofenac tablets were given in the initial 2 weeks to relieve her pain and swelling of the ears. Moreover, adjunctive treatment with calcium and vitamin D tablets was also prescribed. About a month into her treatment for relapsing polychondritis, she complained of an itchy rash in her groin and on her right thigh.

## Examination

On examination, there were patches with circinate configuration and superficial scaling in her groin and on her right thigh (Fig. 1). The patch on right thigh was markedly erythematous.

## Provisional Diagnosis

The lesions were diagnosed to be tinea cruris and tinea corporis.

## Management

The patient was prescribed miconazole 2% cream to be applied twice daily for 2 weeks; however, there was no improvement in the lesions. She was then prescribed topical eberconazole 1% cream which had to be applied twice daily for 2 weeks in view of the fact that she was on oral prednisolone and cyclophosphamide, a nonsteroidal immunosuppressant.

At follow-up visit, the lesion in her groin had healed with post-inflammatory hyperpigmentation. The lesion on her thigh had healed with post-inflammatory hypopigmentation (Fig. 2). Considering the current scenario of frequently relapsing/recurring



Figure 1. Circinate scaly patches in groin and on right thigh.



Figure 2. Healed lesions with post-inflammatory changes.

dermatophytic infections and the fact that she was on immunosuppressant therapy, she was asked to continue applying eberconazole 1% cream for another 6 weeks on the post-inflammatory changes. After 2 months, the patient did not have any new lesions.

## DISCUSSION

Eberconazole, a drug belonging to the class of imidazole displays a wide-spectrum of antifungal activity. An added advantage of this drug is its anti-inflammatory action that makes it different from other agents of its class. Its mechanism of action involves inhibition of fungal lanosterol 14 $\alpha$ -demethylase.<sup>3</sup>

A wealth of data suggests the efficacy of this agent in the treatment of dermatophytic infections including tinea corporis and tinea cruris.<sup>3,4</sup> According to a comparative study that assessed the *in vitro* activities of 4 topical antifungal drugs, eberconazole, clotrimazole, ketoconazole and miconazole against 200 strains of dermatophytes, eberconazole was found to be more active than the other three drugs against most of the species tested.<sup>4</sup> Effectiveness of eberconazole 1% cream was further supported by the findings of another study that compared it with miconazole 2% cream. In this double-blind study, use of eberconazole 1% cream for

4 weeks helped in achieving effective response in 76.09% patients, while the figure was 75% in the miconazole-treated group.<sup>3</sup>

## CONCLUSION

On the basis of the above-mentioned data, it can be suggested that eberconazole appears to be a suitable drug for treating dermatophytosis. In this patient, its use proved to be beneficial for obtaining favorable outcomes.

## REFERENCES

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4. Fernández-Torres B, Inza I, Guarro J. In vitro activities of the new antifungal drug eberconazole and three other topical agents against 200 strains of dermatophytes. *J Clin Microbiol*. 2003;41(11):5209-11.



## FDA Approves Evolocumab Add-On for Familial Hypercholesterolemia in Children Aged 10 and Older

Evolocumab has been approved by the US FDA as add-on treatment to diet alone or with other therapies among children aged 10 years and above having either heterozygous or homozygous familial hypercholesterolemia (FH). The approval was based on randomized trials of evolocumab in both heterozygous and homozygous FH. The HAUSER-RCT trial enrolled patients 10 to 17 years of age with heterozygous FH, taking statins with or without ezetimibe. Patients were randomized to monthly subcutaneous injections of evolocumab (420 mg) or placebo for a period of 24 weeks. There was an average 38% reduction in low-density lipoprotein (LDL) cholesterol among treated patients. The findings were published in the *New England Journal of Medicine* in August, 2020. Another trial involving patients aged 11 to 17 years with homozygous FH noted that patients treated with evolocumab subcutaneous injection (420 mg) monthly given for 80 weeks reported an average 14% reduction in LDL cholesterol, in comparison with the baseline... (Source: Medscape)

## High Levels of Antibodies Passed from Vaccinated Pregnant Women to Babies

A new study suggests that pregnant women who receive an mRNA COVID-19 vaccine pass high levels of protective antibodies to their babies. Investigators assessed umbilical cord blood from 36 newborns whose mothers had been administered at least one dose of Pfizer/BioNTech or Moderna COVID-19 vaccine. All 36 newborns were found to have high levels of antibodies known to target the spike protein. All the antibodies could be traced to the mothers' vaccinations. The findings thus suggest that the antibodies that the mother develops following vaccination cross the placenta and likely confer benefits for the infant after birth, stated study coauthor Dr Ashley Roman, NYU Langone Health, New York City. However, it is not known if the timing of vaccination during pregnancy is tied to antibody levels in the baby. It is also not clear as to how long these antibodies persist in the baby. The findings are published in the *American Journal of Obstetrics and Gynecology - Maternal Fetal Medicine*... (Source: Reuters)