Tea Tree Oil Plus Fungicide Beats Nail Fungus

What the Study Showed

Stubborn toenail fungus can be successfully treated with a cream-based combination of tea tree oil, an herb steam-distilled from the leaves of the Australian *Melaleuca alternifolia* tree, and the potent antifungal medication, butenafine hydrochloride (Mentax). That was the finding of a randomized, placebo-controlled study conducted in Karachi, Pakistan, between 1996 and 1997. Results were reported in a 1999 issue of the journal *Tropical Medicine and International Health*.

How It Was Done

A group of 60 people between the ages of 18 and 80 were involved in the study. Each had at least 25% involvement of a fungal infection in one of their large toenails. None had been treated within the previous three months or had used any topical treatments during the preceding two weeks.

Two-thirds of the participants (40 people) were provided with active test samples containing both tea tree oil and butenafine. The other third (20 participants), who were the control group, received identical-appearing samples containing tea tree oil but no butenafine.

Participants were instructed to apply the cream three times daily and then put on a plastic dressing. Active treatment continued for 8 weeks. Researchers examined the treated toenails weekly through week 16, and then at monthly intervals. Between weeks 4 and 6, if the toenail appeared ready, it was debrided with a nail clipper and treatment was continued. Specimens for microscopic analysis were collected from the affected nails at weeks 8, 24, and 36.

In the end, participants who were given the tea tree oil and butenafine combination had an impressive cure rate of 80% (compared with zero for tea tree oil only placebo group). Side effects were mild, and there were no reported infection relapses. Only four participants experienced mild inflammation (not severe enough to cause them to drop out of the study). And 93% experienced no side effects at all.

Why It's Important

Up to now, treatments using topical medications against stubborn and unsightly fungal nail infections (onychomycosis) have usually failed. This isn't because medications can't combat the fungus, but presumably because they fail to sufficiently penetrate the nail's hard keratin surface to get to the infection.

The present study demonstrates an effective - and relatively side effect-free - way of using a popular herbal skin remedy to beat the fungus. The key appears to be that the drug (butenafine) is combined with an agent (tea tree oil) that can effectively penetrate the nail. In fact, tea tree oil alone has long been
known to have antifungicidal properties, it's noted for its exceptional skin-penetrating ability, and allergic reactions to it are rare. But like most topical agents, the oil alone has never proven effective against persistent nail fungus.

Such minimal side effects are in stark contrast to reactions commonly experienced with the only effective treatment for onychomycosis to date: oral antifungal drugs. Not only must these medications be taken for long stretches of time to eradicate an infection, but they can cause such unpleasant effects as stomach upset, skin rash, menstrual problems, visual and taste disturbances, and headaches.

Given that toenail fungus is so common and so difficult to treat, especially in elderly people who may even find it even hard to walk if the toenail is affected, this use of the combination cream is a welcome alternative for many who suffer from this unpleasant disorder.