

Comparing the Therapeutic Effect of Clotrimazole and Tolnaftate in Treating Variety of Fungal Species Producing Otomycosis in Alzahra and Kashani Hospitals, Iran

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Abstract

Background: Otomycosis is the superficial mycotic infection of external ear canal which occurs as acute, subacute and chronic infection. It is the cause of 6.5 to 12.5 percent of external otitis. More than 62 species and 28 genera of fungi have been identified in patients with otomycosis among which the most common organisms are *Aspergillus Niger* and *Candida Albicans*. Recommended topical medications include steroids, anti-septic, acidic solutions, antifungal and drying agents. Among the antifungal, commonly recommended drugs are clotrimazole, amphotericin B, otosporin and tolnaftate. This study aimed to identify two genera of fungus and comparing the efficacy treatment of clotrimazole and tolnaftate and the recurrence rate after the treatment.

Methods: This was a clinical trial study conducted on 54 patients diagnosed as proved otomycosis (based on culture and smear with identification of the fungus genus and species). We compared the effect of "clotrimazole and tolnaftate" on the treatment and its recurrence on types of fungus.

Findings: After finishing the treatment course, 22 patients were improved in clotrimazole (81.5%); however, in the tolnaftate group, there were 21 improved patients (77.8%). Besides, Chi-square test showed no significant difference between the two groups ($P = 0.99$). Furthermore, out of 43 patients who have been improved after the treatment, recurrence was seen in 15 of them (34.9%). Disease recurrence cases in the group treated with clotrimazole and tolnaftate were 8 and 7 patients respectively (36.4% vs. 33.3%) and despite the frequency distribution of disease recurrence was lower in the tolnaftate group, according to Chi-square test, statistically there was no significant difference between the two groups ($P = 0.99$).

Conclusion: According to the results of this study and its comparison with other studies, both clotrimazole and tolnaftate had an appropriate impact on treating era fungal infections and given to non-improvement and recurrence cases, we should attempt to detect other therapeutic methods of otomycosis, and currently therapeutic aspects such as financial and economic issues should be taken into account to use either of the drugs.

Keywords: Otomycosis, Clotrimazole, Tolnaftate

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