Use of Tacrolimus in otitis externa

R Mora, M Dellepiane, E Cervoni

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Abstract

Sir,

Otitis externa is a localized skin disorder affecting the external auditory canal (EAC) and pinna, which may be acute or chronic when its duration exceeds 3 months.

A simple, single-factor, otitis externa is uncommon. Most often it appears that two key factors are at work and most often combined: infection and allergy.

This has led to the broad use of topical otologic preparations combining antibiotics, antifungal and corticosteroids.

As their use became general, two main problems arose: antibiotic sensitization and fungal infection of the EAC.

Moreover, protracted use of corticosteroids may cause skin atrophy, particularly in the case of the already thin skin of the EAC, and rebound effect.

Tacrolimus, an immunosuppressive macrolide produced by bacteria Streptomyces tsukubaensis, unlike steroids, does not cause skin thinning, fungal overgrowth, and rebound. We herein present the case of a chronic eczematous otitis externa associated with

Candida parapsilosis infection resolved with Tacrolimus ointment.

Candida parapsilosis has become a significant cause of sepsis and of wound and tissue infections in immune-compromised patients ($_1$)

We were able to find only 2 cases in literature of otitis externa due to Candida parapsilosis ($_2$).

Both patients had diabetes, and Candida parapsilosis was isolated together with Aspergillus flavus. The infection resulted in necrotizing otitis externa requiring IV anti-fungal treatment.

Mrs. A.G., a 63-year-old woman, white, Caucasian, presented with severe left chronic eczematous otitis externa resistant to treatment with Triadcortyl ointment. She was otherwise in good health and her past medical history was unremarkable.

A swab was obtained and 3 grams of Tacrolimus ointment 0.01% were applied to fill the left EAC.

Swab results showed growth of Candida parapsilosis.

After 1 week the patient had both subjectively and objectively improved.

Tacrolimus ointment application was repeated and Mrs A.G. reviewed after 1 further week when otoscopy was absolutely normal.

The Authors believe that this case is interesting for several reasons.

Firstly, this is the only case reported in literature of uncomplicated otitis externa supported by Candida parapsilosis.

Secondly, Candida parapsilosis tends to affect patients with some degree of immunesuppression, but this was not the case.

Thirdly, the use of Tacrolimus in otitis externa is very recent ($_3$).

In this case Tacrolimus ointment 0.01% has resolved the otitis externa, despite the presence of concomitant fungal infection.

We propose that Tacrolimus ointment may be a useful option in dealing with recalcitrant, uncomplicated, eczematous otitis externa, even if in presence of fungal infection.

References

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Author Information

Renzo Mora
ENT Specialist, University of Genoa

Massimo Dellepiane
ENT Specialist, University of Genoa

Edoardo Cervoni
ENT Specialist, University of Genoa