Letter

Demodicosis: A frequently underrecognized cause of recalcitrant ear pruritus

Ayse Serap Karadag, MD[1], Gulfem Unsal, MD[2a]

[1] Private Dermatology Clinic, Atasehir, Istanbul, Turkey, [2] Department of Dermatology, Ankara Training and Research Hospital, Ankara, Turkey

Keywords: demodicosis, ear, pruritus

Dermatology Online Journal

Vol. 31, Issue 6, 2025

To the Editor

Ear pruritus is a frequent symptom in clinical practice, often attributed to conditions such as atopic dermatitis, seborrheic dermatitis, or otitis externa. However, new evidence indicates that *Demodex folliculorum* and *Demodex brevis* infestations may contribute to persistent or treatment-resistant ear pruritus.[1,2] We present a case of ear pruritus associated with Demodex infestation, emphasizing the clinical, dermoscopic, and microscopic features that aided in the diagnosis.

A 35-year-old woman presented with a 6-month history of persistent ear pruritus unresponsive to conventional treatments, including tacrolimus, pimecrolimus, methylprednisolone acetonide, antihistamines, and antifungals, for seborrheic dermatitis and otitis externa. Physical examination revealed mild erythema, dryness, and a sandpaper-like texture on the face. Dryness was also present around the ears and on the neck with no signs of acute infection, dermatitis, or scale (**Figure 1**).

Polarized-light dermoscopic examination (DermLite V, FotoFinder) revealed characteristic follicular plugging and cylindrical structures protruding from hair follicles, indicative of Demodex infection. Erythema and non-specific scaling were observed around the follicular openings, reflecting inflammation associated with mite activity (UV-light of DermLite) (**Figure 2**). Microscopic examination using a superficial skin biopsy with cyanoacrylate adhesive confirmed the presence of Demodex mites in multiple hair follicles (**Figure 3**). The patient was treated with topical ivermectin and tea tree oil cream. Erythema and scaling improved, and pruritus significantly decreased within 2 weeks. Follow-up at 6 weeks confirmed complete remission of symptoms.

Demodex mites are small ectoparasites that primarily inhabit sebaceous glands and hair follicles on the face. They are common in humans, and prevalence increases with age. Although generally harmless, overpopulation can lead to dermatologic conditions.[3] Immune compromise or prolonged use of topical steroids and calcineurin inhibitors can disrupt the skin microbiota, allowing secondary overgrowth of these mites. Auricular involvement, however, is rare.

Typical clinical signs include rough, sandpaper-like skin, erythema, scaling, and itching in facial dermatoses. Ocular involvement can present as eyelid inflammation, irritation, and lash loss. Increased sebum secretion, especially in the T-zone, provides an ideal habitat for mite growth.

Management aims to reduce mite density and relieve symptoms. Topical treatments, including ivermectin, metronidazole, permethrin, benzyl benzoate, or tea tree oil, are effective in lowering mite populations. Oral ivermectin may be indicated for severe infestations. Adjunctive measures, such as regular cleansing with non-comedogenic products, maintaining eyelid hygiene, and avoiding oily skincare products, can help prevent recurrence.[4] Treatment regimens should be individualized, considering contraindications and ensuring adherence.

Although Demodex mites are commonly associated with facial conditions such as rosacea and seborrheic dermatitis, their presence in the auricular region can mimic other ear conditions. Dermoscopy and microscopic examination are crucial for accurate diagnosis and early treatment.[5] Demodicosis should be considered in the differential diagnosis of persistent or treatment-resistant ear pruritus. Early detection can prevent unnecessary use of antibiotics, antifungal treatments, or topical steroids and improve patient outcomes. Collaboration between dermatologists and otolaryngologists may further enhance diagnostic accuracy and patient care. This case underscores the importance of clinician awareness of this often-overlooked cause of ear pruritus.

Potential conflicts of interest

The authors declare no conflicts of interest.

a Corresponding Author: Gulfem Unsal, MD, Department of Dermatology, Ankara Training and Research Hospital, Hacettepe Mahallesi, Ulucanlar Cd. No: 89, Altındağ, Ankara 06230, Turkey, Tel: 90-312-291-1000, Email: drgulfemunsal@gmail.com

Figure 1. *Physical examination revealed mild erythema, dryness, and a sandpaper-like texture on the face. Dryness was also present around the ears and on the neck with no signs of acute infection, dermatitis, or scale.*

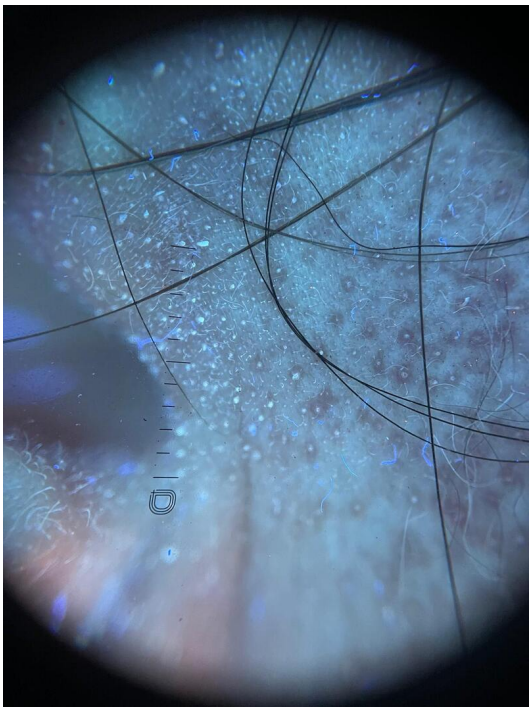

Figure 2. *Polarized-light dermoscopic examination (DermLite V, FotoFinder) revealed characteristic follicular plugging and cylindrical structures protruding from hair follicles, indicative of Demodex infection. Erythema and non-specific scaling were observed around the follicular openings, reflecting inflammation associated with mite activity (UV-light of DermLite).*

Figure 3. *Microscopic examination using a superficial skin biopsy with cyanoacrylate adhesive confirmed the presence of Demodex mites in multiple hair follicles.*

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