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## Milia en Plaque☆

### Quistes miliares múltiples agrupados

To the Editor:

Multiple grouped milia or milia en plaque, as it is normally called in the literature, is a rare skin condition of unknown etiology and pathogenesis that is clinically characterized by multiple grouped cysts at a specific site.

We report the case of a 53-year-old Brazilian woman who presented with multiple lesions and mild pruritus that had appeared 6 weeks earlier on both ear lobes. She had been living in Spain for 8 years, had no relevant past medical history, and was receiving no regular treatment. She reported no history of injury, burns, dermabrasion, or use of cosmetics or topical drugs at the site of the lesions.

Physical examination revealed multiple grouped, smooth, yellowish-white cystic lesions, measuring 0.1 to 0.2 cm in diameter, with a faintly erythematous surface, on the right helix and ear lobe (Fig. 1). Lesions of similar characteristics were observed on the left ear lobe, but in smaller numbers.

Biopsy of the lesions on the right ear lobe showed multiple follicular infundibular cysts with a perifollicular foreign body-type granulomatous infiltrate response. The cysts were lined with squamous epithelium with a granular layer and slightly basophilic lamellated keratin (Fig. 2).

Based on these clinical and pathologic findings, we diagnosed milia en plaque.

The patient received 4 sessions of photodynamic therapy (PDT) with methyl aminolevulinate hydrochloride cream at 2-weekly intervals. There was a marked reduction in the number of cysts and response was maintained at 5 months (Fig. 3).

Milia are small epidermoid cysts located in the superficial dermis that present clinically as smooth, round white to yellowish lesions. They are classified as primary if they arise spontaneously and are of unknown etiology, and as secondary if they appear in response to repeated trauma, burns, radiation therapy, topical corticosteroids or topical 5-fluorouracil, oral ciclosporin, or other types of aggression.<sup>1</sup>



Figure 1 Multiple grouped smooth cystic lesions on the right helix and ear lobe.

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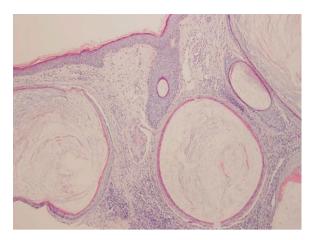


Figure 2 Follicular infundibular cysts with a perifollicular foreign body-type granulomatous infiltrate response (hematoxylin-eosin, original magnification ×10).



**Figure 3** Marked reduction in the number of cysts after treatment with photodynamic therapy.

Milia en plaque is a rare type of primary milia that was first described in 1903 by Blazer and Bouquet.<sup>2</sup> The etiology and pathogenesis of this rare variant are unknown, although associated cases of pseudoxanthoma elasticum and discoid lupus erythematosus have been reported.<sup>3,4</sup> The condition is more common in middle-aged adults, with a certain predominance in women.<sup>5</sup>

Milia en plaque is characterized clinically by the presence of multiple grouped asymptomatic milia within a plaque in a specific location. The most common site is the retroauricular area (with a unilateral or bilateral distribution), but there have been some cases reported in other locations, including the ear lobes, the preauricular region (bilateral distribution), the eyelids, the paranasal region, the supraclavicular region, the submandibular region (bilateral distribution), the back of the hands, and the legs.<sup>6</sup>

Histologic features include numerous small cavities filled with lamellated keratin, lined by a wall of 2 or 3 layers of epithelial cells. A mild or moderate, predominantly lymphocytic, inflammatory infiltrate with a nonlichenoid pattern is generally observed in the dermis.

The differential diagnosis should include secondary milia, lichen planus follicularis tumidus, comedo nevus, trichoadenoma, Favre-Racouchot nodular elastosis, follicular mucinosis, folliculotropic mycosis fungoides, and steatocystoma multiplex.

Treatment is not fully established but electrodesiccation, dermabrasion, cryotherapy, surgical resection, etretinate, carbon dioxide laser treatment, topical retinoids, oral minocycline and doxycycline, and PDT have been used. 1,7-10 Stefanidou et al. were the first to use PDT on milia en plaque, obtaining a partial response after 3 sessions at weekly intervals; response was maintained at 1-year follow-up. PDT is based on the photooxidation of biological materials induced by a photosensitizer (5-aminolevulinic acid or topical methyl 5-aminolevulinate), which is selectively retained in specific cancer cells or tissues that are destroyed when exposed to a sufficient dose of light at an appropriate wavelength. It is effective in the treatment of actinic keratosis, basal cell carcinoma, and Bowen disease.

We have described a new case of milia en plaque, which involved both ear lobes and in which PDT led to a significant reduction in the number of cysts. It is the second case in the literature that reports the use of this therapy.

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# Five Cases of Recalcitrant Plantar Warts Successfully Treated with Imiquimod 5% Cream<sup>☆</sup>

# Tratamiento eficiente de 5 casos de verrugas plantares recalcitrantes con imiquimod 5%

To the Editor:

Plantar warts are caused by infection with human papillomavirus (HPV) types 1, 2, 4, or 57.<sup>1-3</sup> Their treatment can be difficult when the lesion is located in a callused site subjected to significant pressure or when several warts are grouped together. Conventional treatments, which are usually destructive, cause pain and are not always effective. Therapy that does not result in scarring, which can remain painful for years, is recommended for plantar warts.

Imiquimod 5% cream is approved for the treatment of genital warts and has also been used successfully on viral warts in other sites. 1,3,4 Moreover, there is scientific

evidence supporting its efficacy and safety in the eradication of recalcitrant plantar warts without local adverse effects. $^{1-3,5-7}$ 

Table 1 shows the clinical characteristics of 5 patients who had painful plantar warts that made walking difficult. In 4 cases the warts had been resistant to other treatment, but they all responded very positively to imiquimod 5% cream (Figs. 1 and 2). In all cases, imiquimod was applied at night, without occlusion, 3 times a week, until the lesions disappeared. On days when imiquimod was not administered, petrolatum with 17% salicylic acid was applied. The hyperkeratosis associated with warts located in pressure zones was removed mechanically with a scalpel every 2 weeks (cases 2 and 3).

Imiquimod (1-[2methypropyl]-1 H-imidazole [4,5c]quinolin-4amine) is an immune response modifier with antiviral and antitumor activity mediated by the induction of helper T ( $T_h$ ) 1 cytokines. <sup>8,9</sup> The exact mechanism of action remains unclear, but activation of the immune system is thought to be responsible for eradicating

Table 1 Clinical Data for 5 Patients.

Clinical Data	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Age, y	48	25	39	25	17
Sex	Female	Female	Female	Male	Female
Time since onset	2 y	2-3 y	18 m	2 m	5 m
Location	Right heel	Left sole	Right sole	4th left toe	Right anterior third
Symptoms	Pain	Pain	Pain	Pain	Pain
Clinical Type	Grouped	Callus	Callus	Fissure	Grouped
Ineffective	Cryotherapy	Cryotherapy	Cryotherapy	No treatment	Cryotherapy
prior	Keratolytics	Keratolytics	Keratolytics		
treatments	Injections				
Regimen used		Curettage	Curettage		
	Imiquimod 5%				
	PET-17	PET-17	PET-17	PET-17	PET-17
Cure (weeks)	4	6	8	4	4
Adverse effects	No	No	No	No	No
Recurrence at 6 months	No	No	No	No	No

PET-17 Petrolatum with 17% salicylic acid.

<sup>\*</sup> Please cite this article as: López-Giménez MT. Tratamiento eficiente de 5 casos de verrugas plantares recalcitrantes con imiquimod 5%. Actas Dermosifiliogr. 2013;104:640–2.