Milia en plaque of the Nose: Report of a Case and Successful Treatment With Topical Tretinoin

abstract

Milia are benign, superficial keratinaceous cysts that present as fine, small white papules. Milia en plaque is a rare, challenging-to-treat variant most often seen in the posterior auricular region. A total of 9 cases of milia en plaque have been reported in the pediatric literature to date. We report a case of milia en plaque of the nose in a 7-year-old boy, a novel site of involvement in the pediatric population, and successful treatment with the use of topical tretinoin. Topical retinoids offer an effective treatment option for the management of milia en plaque in the pediatric population. Pediatrics 2014;133:e1373–e1376
Milia are benign, superficial keratinaceous cysts that present as fine, small, white papules that may arise primarily or secondary to another underlying skin disorder. Milia en plaque is a rare variant of milia first described in 1903 by Balzer and Fouquet. The initial report described a patient presenting with plaques with confluent cysts over the bilateral posterior auricular area. The term “milia en plaque” was coined in 1978 by Hubler and colleagues who described 2 patients with milia on an erythematous edematous base.

The characteristic histology of milia en plaque consists of keratinaceous cysts with a surrounding mixed inflammatory infiltrate. Milia en plaque is usually asymptomatic. The most common site of involvement is the periauricular region, although cases have been reported involving the eyelids, trunk, nasal fold, cheeks, and forehead.

We describe a case of milia en plaque occurring on the nasal tip of a healthy 7-year-old child and the successful treatment with a topical retinoid cream.

**PATIENT PRESENTATION**

A healthy 7-year-old boy presented with multiple papules on his nose, present for 2 months. No medications or topical creams or lotions had been applied to the nose. There was no family history of any similar skin lesions in his parents or siblings. He had no history of previous injury to the nose. His parents reported he had a recent mild upper respiratory infection with coryza before the onset of the skin lesions but denied any trauma to the nose.

The patient was Fitzpatrick skin type V. A 15 × 15-mm discrete, erythematous, edematous plaque was located at the midline nasal tip (Fig 1). The plaque was composed of numerous 0.5- to 1.0-mm white-yellow waxy nontender papules consistent with milia. Dermoscopic
evaluation confirmed the presence of multiple discrete white-yellow cystic papi-
ules of cutaneous milia. The papules were nontender. There were no similar milia
located anywhere else on the body. The remainder of the cutaneous examination
was unremarkable. A diagnosis of milia en plaque was made.

Superficial fungal and bacterial cul-
tures were taken to exclude infection.
He was treated empirically with 2
weeks of topical antifungal cream with
no response; cultures excluded in-
fec tion. The patient returned to clinic
following Blaschko lines? J Dermatol.
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topical steroids,18 oral antibiotics,16 li-
quid nitrogen cryotherapy,18 and manual
extraction,7 all with variable rates of
success in small numbers of patients.
Additional treatments that have been
tried for milia en plaque in the adult
population include CO2 laser,19 erbium:
YAG laser,20 dermabrasion,21 and sys-
temic retinoids.22

Our patient was treated successfully
with a course of topical tretinoin cream
0.025% applied once nightly, with im-
provement noted at follow-up after 6
weeks of therapy. No adverse effects of
treatment were noted by the patient or
his parents. To date there is no evidence
of scarring or atrophy in the area of
involvement. He was seen again in
follow-up at 1 year with durable, sus-
tained response achieving complete
resolution.

Previous cases of pediatric milia en plaque treatment with topical retinoids
have reported use of tretinoin 0.05%
cream. This case adds to the body of
knowledge regarding milia en plaque
describing a novel site of involvement
and provides an example of a successful therapeu tic option in a pediatric patient
by using a lower concentration of top-
cical retinoid than previously reported in
the literature.

DISCUSSION

Milia en plaque is a rare cutaneous
condition in the pediatric population.
Most milia en plaque cases reported in
the literature have been of adult
patients. Zhang and Zhu9 reviewed a
total of 7 previous cases in the pediatric
population in addition to an eighth case
more recently reported. An additional
case described in the literature of a 16-
year-old girl with bilateral eyelid milia
en plaque has also been reported.4 Of
the previous 9 cases in the pediatric
population, all but 1 involved either the
periocular or periaurricular regions,
with the remaining case occurring on
the left cheek. To the best of our
knowledge, our case represents the
first report of primary milia en plaque
involving the nasal tip in the adult or
pediatric population.

The presentation of milia en plaque may
be unilateral or bilateral.19 Recent case
reports have described milia present-
ing in a linear distribution on the cen-
tral face in a Blaschkoid pattern11 and
another involving the transverse nasal
crease.12 Most cases reported in the
literature classify the phenomenon as
a spontaneous primary eruption, al-
though reports exist of milia en plaque
arising in sites of preexisting skin dis-
ease, such as discoid lupus erythe-
matosus,13,14 and also in association
with renal transplantation.15,16

Treatments for milia en plaque in the
pediatric population that have been tried
either alone or in combination include
topical retinoids,8 electrod essication,17

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