Azithromycin Therapy for Multiple Eruptive Milia: A Report of a Case, New Treatment Option, and Review of the Literature

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INTRODUCTION

Eruptive milia is a unique entity defined in the literature as an outbreak of numerous milia that rapidly appear over weeks to months. These lesions differ from multiple primary milia that have slowly accumulated over time. Eruptive milia appear briskly, usually within one month, and are most frequently distributed on the head, neck, and trunk. Only nine cases of eruptive milia in patients aged eight to 78-years-old have been described in the literature. Reports of effective treatment options for this idiopathic form of spontaneously arising milia are few. Incision and expression, curettage, and electrodessication—all common treatments for limited numbers of milia are impractical for multiple eruptive milia due to the number of lesions and pain associated with treatment. Topical retinoids and minocycline have been suggested for milia en plaque, a rare variant of grouped milia forming a plaque often in the post-auricular area, but their use has not been reported for multiple eruptive milia. We report a case of multiple eruptive milia responsive to treatment with alternate weekly dosing of oral azithromycin. We also present a review of cases of this rare entity.

REPORT OF A CASE

A 70-year-old female presented with a rapid onset of diffuse, intermittently pruritic lesions that started in bilateral axillae four months prior and subsequently spread to her upper chest and neck over the following three months. She had no significant past medical history. Her daily medicines included only a multivitamin. She denied pre-existing skin conditions, trauma, infection, erythema or bites. Review of systems was unremarkable.

Physical examination revealed a thin, elderly female with grouped 2-4mm flesh-colored to white dome-shaped non-inflamatory papules grouped in bilateral axillae, her upper chest, and posterior neck (Figure 1).
Figure 1
Figure 1: Multiple eruptive milia with cystic appearance in right axilla prior to azithromycin therapy.

A punch biopsy confirmed the clinical diagnosis of milia (Figure 2).

Figure 2
Figure 2: Hematoxylin and eosin stain shows an epithelial-lined cyst in the reticular dermis consistent with milium.

She was initially treated with oral minocycline 100mg twice daily, but was unable to tolerate this medication due to nausea. Minocycline was discontinued, and the patient was started on azithromycin 500mg on day one and 250mg on days two through five to be taken on the first and third week of the month, for three months. Three months later, the patient reported the lesions began to diminish in size after one month of azithromycin therapy. She had progressive clinical improvement and cessation of new lesion development at her eight month follow-up appointment (Figure 3).
Figure 3: Clinical improvement of milia after azithromycin treatment.

Comment. Milia have been divided into those arising spontaneously, inherited, or those associated with a genodermatosis. Langley et al suggested such a classification following a description of a case of multiple eruptive milia in a 71-year-old man with dermatitis, diabetes mellitus, and multiple malignancies and a review of the literature. Since then seven other cases have been described in the English literature (Table 1).

Table 1: Reported Cases of Multiple Eruptive Milia. Clinical characteristics of each patient are described. , Male; , Female

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Age (years)</th>
<th>Sex</th>
<th>Location</th>
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<tr>
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<td>78</td>
<td>F</td>
<td>Axillae and Chest</td>
</tr>
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<td>Diba et al</td>
<td>2008</td>
<td>9</td>
<td>M</td>
<td>Nose and Cheeks</td>
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<tr>
<td>Connolley</td>
<td>2008</td>
<td>68</td>
<td>F</td>
<td>Chest</td>
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<tr>
<td>Diba et al</td>
<td>2005</td>
<td>68</td>
<td>F</td>
<td>Scalp and Chin</td>
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<td>Katayama et al</td>
<td>2003</td>
<td>8</td>
<td>F</td>
<td>Face and Extremities</td>
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<td>1999</td>
<td>15</td>
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<td>Face</td>
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<td>Wolfe et al</td>
<td>1999</td>
<td>48</td>
<td>F</td>
<td>Lower Back and Neck</td>
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<td>Alapati et al</td>
<td>998</td>
<td>76</td>
<td>M</td>
<td>Eyebrows</td>
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<td>Langley et al</td>
<td>1997</td>
<td>51</td>
<td>M</td>
<td>Face and Chest</td>
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A distinctive feature of our patient’s eruption was the distribution of milia in bilateral axillae and chest with virtually no milia on the face. Unlike the case we present, the most common site of eruption is the face.

Non-mechanical treatment options for multiple milia are limited and few successful treatments have been reported in the literature. Connelly described an 18-year-old female with eruptive milia of the chest who rapidly responded to Tretinoin 0.1%. The response of our patient to azithromycin suggests the possibility of the presence of an infectious etiology for eruptive milia; however no such etiology has been found. Milia commonly occur secondary to inflammatory skin disease, and perhaps the anti-inflammatory effect rather than the antimicrobial effect of azithromycin prevented new milia from forming while established ones resolved.

References
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