

Eruptive Milia Associated with Isotretinoin

Saad Mohammed Altalhab, Rasha Abdulaziz Zainalabidin¹

Department of Dermatology, College of Medicine, al Imam Mohammad Ibn Saud Islamic University, ¹Department of Dermatology, Light Clinics, Olaya, Saudi Arabia

Abstract

Isotretinoin is the most effective treatment for severe acne, although its potential side effects and monitoring requirements restrict its use. We are reporting eruptive milia of the eyelid/periorbital area associated with low-dose isotretinoin treatment in three adults.

Keywords: 13-Cis-Ra, isotretinoin, milia, periorbital milia, secondary milia

INTRODUCTION

Acne vulgaris is a common disease affecting young adults. Oral isotretinoin is the most effective drug for the treatment of acne vulgaris. Many side effects have been reported which include xerosis and dryness of mucous membrane in addition to other systemic side effects which include teratogenicity.^[1] Herein, we report these cases of eruptive milia associated with low-dose oral isotretinoin treatment.

CASE REPORT

A 30-year-old female, Fitzpatrick skin Type IV, with no history of any previous illness, presented to our dermatology clinic with moderate facial acne. She previously tried topical retinoid and antibiotic with minimal improvement. After that, the patient was started on isotretinoin 20 mg/d; the dose was not increased as she was complaining of severe xerosis. After 7 months of treatment, her acne had improved, but she presented with a new complaint of multiple bilateral white-to-yellow papules over both the upper and lower eyelids [Figure 1]. Clinical diagnosis was eruptive periorbital milia induced by low-dose isotretinoin.

The second patient was a 20-year-old male, Fitzpatrick skin Type IV, with no history of any previous illness, who presented to our dermatology clinic with moderate facial acne for 2 years. He had not improved on topical treatment and was started on 20 mg/d of isotretinoin for 2 months. After 6 weeks after treatment initiation, the patient noticed white papules on both the eyelids, which was diagnosed as an eruptive milium [Figure 2].

The third patient was a 22-year-old male, not known to have any medical illness, who came to the dermatology clinic with severe acne vulgaris and widespread scars. He was started on 20 mg of isotretinoin daily. Two months after starting the treatment, the patient noticed white-yellow papules around both the eyes. Our diagnosis was eruptive eyelid milia induced by low-dose isotretinoin.

DISCUSSION

Milia are small white superficial keratinous cysts (≤ 3 mm), containing several thick layers of stratified squamous epithelium with a granular cell layer. They commonly occur either as primary or secondary to different causes.^[2] There are a few studies that demonstrate the origin of milia. Primary milia are

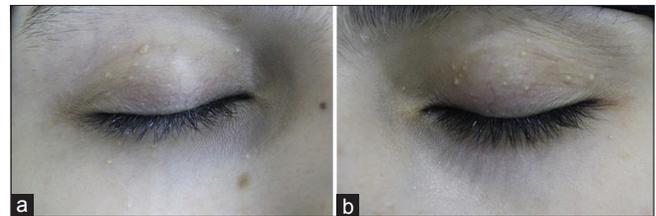


Figure 1: Case 1: Multiple eruptive eyelid milia in a 30-year-old female induced by isotretinoin. (a) Right eyelid region. (b) Left eyelid region

Address for correspondence: Dr. Saad Mohammed Altalhab, Department of Dermatology, College of Medicine, Imam Mohammad Ibn Saud Islamic University, Olaya, Riyadh, Saudi Arabia. E-mail: s.altalhab@hotmail.com

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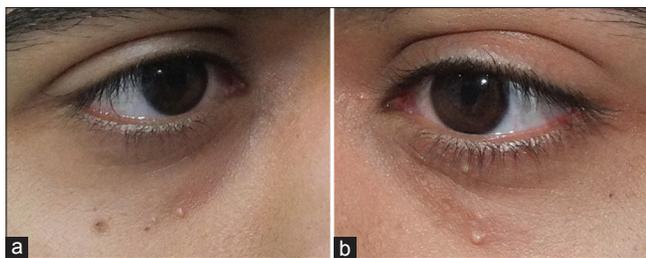


Figure 2: Case 2: Multiple eruptive eyelid milia in a 20-year-old male induced by isotretinoin. (a) Right eyelid region. (b) Left eyelid region

believed to originate from the sebaceous collar of vellus hair (lower infundibulum), while secondary milia are thought to be derived from eccrine ducts.^[3,4] Secondary milia induced by drugs have been reported with topical corticosteroids, dovitinib, sorafenib, benoxaprofen, 5-fluorouracil, penicillamine, cyclosporine, acitretin, or nitrogen mustard. Secondary milia also have been associated with many other diseases, including bullous pemphigoid, infections, and contact dermatitis.^[5] The pathogenesis of isotretinoin-induced milia is not well characterized.^[6]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other

clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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