



CASE REPORTS & CASE SERIES

Perioral Köebner Phenomenon Following Lip Licking Dermatitis in a Patient with Acrofacial Vitiligo

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Abstract

Background: Koebner phenomenon was first described by Heinrich Koebner in 1876 as the appearance of new skin lesions on previously unaffected skin secondary to trauma. Among the several recognized triggers, such as burns and friction, allergic and irritant reactions may also emerge as overlooked causes of koebnerization.

Methods: The authors of this paper report a case of a seventeen-year-old girl who was in treatment for acrofacial vitiligo during the last two years with satisfactory response to topical tacrolimus 0.1% ointment and phototherapy when she suddenly started getting worse. A new onset redness around her mouth was noted and she had recently visited a psychiatry to help against psychological distress from school bullying. On physical examination, xerosis, flaking and superficial fissures were noted on the patients' lips while her mother mentioned an intriguing new habit: repeated lip licking. Results: this case pictures a case of vitiligo koebnerization secondary to saliva induced irritant contact dermatitis, which ultimately pointed to a behavioral disorder.

Conclusion: It is of ultimate importance to maintain a high level of attention when evaluating patients with cheilitis and a psychological background. In the literature, this is the first case of Koebner phenomenon in the context of vitiligo following lip licking dermatitis.

Keywords

Koebner phenomenon, Vitiligo, Lip licking dermatitis

Introduction

Koebner phenomenon was first described by Heinrich Koebner in 1876 as the appearance of new skin lesions on previously unaffected skin secondary to trauma [1,2]. Several triggers may be behind the koebnerization process, varying from mild to severe skin injuries, such as burns, friction, insect bites, surgical incision as well as allergic and irritant reactions [1]. For the inattentive physician, the Koebner phenomenon may create a tricky scenario where diagnosis is easily overlooked.

Case Report

A seventeen-year-old girl was in treatment for acrofacial vitiligo during the last two years with satisfactory response to topical tacrolimus 0.1% ointment and phototherapy three times a week (Figure 1). Three months ago, she complained of itching lips and new onset redness around her mouth. She denied use of any over the counter medication and was otherwise healthy, even though she had recently visited a psychiatry to help against psychological distress from school bullying. On physical examination, xerosis, flaking and superficial fissures were noted on the lips and a sharp border achromic halo was evident around the mouth, picturing a worse presentation of her skin condition, leading to frustration and treatment discontinuation (Figure 2). While trying to list possible causes for the current presentation, her mother warned us that an intriguing new

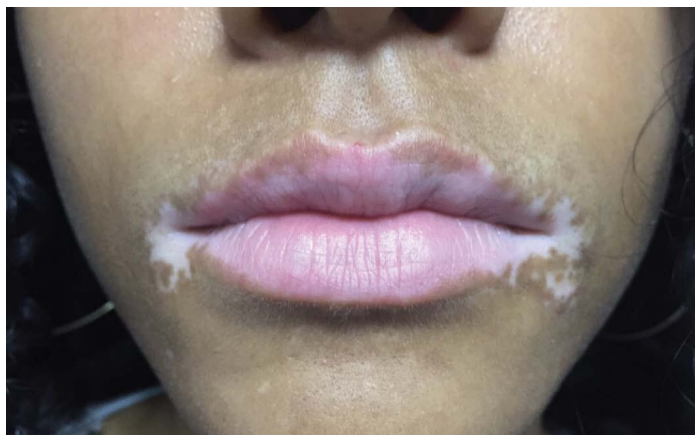


Figure 1: Perioral vitiligo after 18 months of treatment with phototherapy and topical tacrolimus: Successful repigmentation around the lips.



Figure 2: Lip licking dermatitis expressed by xerosis, flaking and superficial fissures on the lips. Koebner phenomenon is evident by a sharp border achromic halo around the mouth.

habit has recently emerged: the patient was licking her lips. We finally realized that the achromic pattern was a possible representation of the Koebner phenomenon secondary to saliva induced irritant contact dermatitis. The patient was treated with psychological support, short course of topical mometasone furoate and is currently in treatment with tacrolimus 0.1% ointment with good response.

Discussion

Urine, feces and saliva can lead to variable degrees of irritant contact dermatitis (ICD) and this is especially true for children and young adults [2,3]. The habit of lip licking may lead to ICD involving the perioral skin as well as the lips and features one of the most common causes of cheilitis [2].

The clinical presentation of lip licking dermatitis is composed of erythema and squamae with a sharp border, which is clearly marginated around the mouth, sometimes with fissures [2,3]. This tricky constellation of signs and symptoms may easily be misidentified as perioral dermatitis; thus, caution is needed for the right diagnosis [2].

Koebner phenomenon is considered a type of skin reaction that follows a trauma and mimics a pre-existing condition, such as vitiligo and psoriasis [4]. Cases of Koebner phenomenon affecting the lips and perioral region have already been published in the setting of treatment for acne vulgaris with oral isotretinoin and as a complication of tattoo on the lips [4,5].

The Boyd–Nelder classification of the Koebner phenomenon categorizes vitiligo as one of the few truly koebnerizing conditions and recognizes trauma as an established cause of koebnerization [5,6]. Accordingly, in 2015 Garner and collaborators highlighted chronic cheilitis as a possible cause of koebnerization, resulting in depigmentation in the area of “trauma” [5].

It is plausible to think that if different degrees of trauma, ranging from getting the lips tattooed to mild cheilitis caused by oral isotretinoin, may evoke koebnerization, the habit of lip licking may as well be considered a likely trigger. Also, if licking of the lips may point to a behavioral disorder [7], it is of ultimate importance that the attending physician maintain a high level of attention when evaluating patients with cheilitis and a psychological background.

Finally, the authors have not found in the literature any case of Koebner phenomenon in the context of vitiligo following lip licking dermatitis. More than just by its originality, this paper introduces a remarkable appeal for the necessity of being attentive to unusual clinical presentations and approaching the patients in a multidisciplinary fashion. In our case, only by doing so could the patient overcome psychological barriers and resume the treatment with good hope.

Disclosure

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The authors have equally contributed to this work throughout the process.

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