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An Interesting Side Effect of Topical Steroids: Nipple Hypertrophy

Özlem Ekiz,[1*] MD, Bilge Bülbül Şen,[1] MD, Emine Nur Rifaioğlu,[1] MD, İhsan Üstün,[2] MD, Çiğdem Asena Doğramacı,[1] MD

Address: [1]Department of Dermatology and [2]Department of Endocrinology, Mustafa Kemal University Faculty of Medicine, Hatay, Turkey

E-mail: drozlemekiz@yahoo.com.tr

** Corresponding Author:* Dr. Özlem Ekiz, Mustafa Kemal University Faculty of Medicine, Department of Dermatology, Hatay, Turkey

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Abstract

Observations: There are many local and systemic side-effects of corticosteroids. To the best of our knowledge, enlargement of the nipple due to topical corticosteroids has not been reported previously. We report a 17-year old, male patient who started himself a topical corticosteroid clobetasol 17-propionate because of itching complaint at his left nipple. After 4 months of initiation of treatment, he developed unilateral left nipple hypertrophy. Based on patient history, clinical and laboratory findings and the exclusion of other diagnoses, the hypertrophy of the nipple points out the use of a topical corticosteroid. With this case we wanted to draw attention of clinicians about an interesting side effect of a topical corticosteroid.

Introduction

Many local and systemic side effects have become more prevalent since the uncontrolled use of higher potency topical corticosteroids. Application of topical corticosteroids on thin and damaged skin, on the elderly or pediatric population or under occlusion increases the incidence of side effects. Systemic side effects occur as a result of systemic absorption of topical products. The most common local side effects are atrophy, stria, hypopigmentation, hyperpigmentation, telangiectasia, folliculitis, acne, susceptibility to infections and hypertrichosis [**1**]. Herein, we report a case of nipple enlargement due to using a topical corticosteroid.

Case Report

A 17-year-old man presented to our dermatologic department because of unilateral hypertrophy of his left nipple, which existed for 4 months. According to the history he did not have any systemic disease. He had only complains of left breast itching and used topical corticosteroid (clobetasol 17-propionate) for 4 months by himself uncontrollably. He did not have a history of any other oral or topical medication. Physical examination was normal except the left nipple hypertrophy (**Figure 1**). Right nipple was normal (**Figure 2**). He did not have gynaecomastia. Other secondary sex characteristics were normal. The laboratory findings were as follows; glucose, 94mg/dl (70-100), creatinine, 0.8mg/dl (0,5-1.17), alanin aminotranspherase (ALT), 42U/L (0-50), TSH, 1.23IU/ml (0.34-5.60), prolactin, 6,20ng/ml (2.64-13.13), estradiol, 28 pg/ml (14-55pg/ml), testosterone, 3.87ng/ml (1,75-7,81), cortisol, 18 mcg/dL (5-25 mcg/dL), total IgE 86 IU/ml (0-100 ıu/ml). Breast ultrasonographic examination was normal. Based on the patient's history, clinical and laboratory findings and the exclusion of other diagnoses, the hypertrophy of the nipple associated with the use of topical corticosteroids was diagnosed. To-

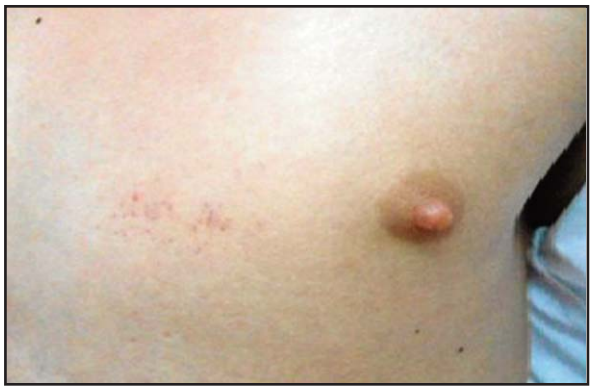

Figure 1. Hipertrophy of left nipple

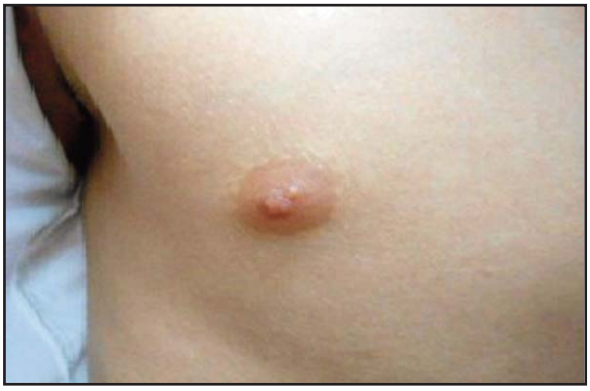

Figure 2. Same appearance of other nipple

pical corticosteroid creams was stopped and the patient was followed up.

Discussion

Nipple hypertrophy (macrothelia), is a rare condition with an unclear etiology. Although the breast glandular tissue is normal, the diameter of nipple is disproportionately larger than the diameter of areola. It is characterized by aesthetically unacceptable, long, prominently projecting nipples. Nipple hypertrophy can cause significant psychosocial problems and physical discomfort to the patient [**2**]. Puffy nipple is the most common form of gynecomastia. This gland and/or adipose tissue accumulation can be located under the areola or can be slightly extended outside the areola, causing the areola to appear dome shaped [**3**]. Gynecomastia was not seen in ultrasonographic examination, so we excluded diagnosis of puffy nipple. According to the history, he did not mention about atopia and serum IgE level was normal. On the other hand, we did not see erythema, lichenificiation, excoriation and erosion on nipple in terms of atopic dermatitis (AD). Nipple-areolar eczema usually occurs as bilateral and may be related with systemic symptoms of AD. Therefore, we excluded the diagnosis of AD.

Hyperkeratosis of the nipple and areola is common in women of childbearing age and are characterized clinically by persistent verrucous thickening and dark pigmentation of the nipple and areola. The involved skin is not indurated and there is no discharge [**4**]. Our patient was a young male patient and clinically there was no persistent verrucous thickening and dark pigmentation of the nipple and areola. Since the widespread and uncontrolled use of high potency topical glucocorticoids, side effects have become more common. As a result of systemic absorption of glucocorticoids, can suppress pituitary adrenal axis. Corticosteroids can cause virilization in females and feminization in males. And also corticosteroids may increase muscle mass as well as hypertrophy of the penis, accentuate scrotal folds and stimulate sebaceous glands in men [**5, 6**]. The nipple-areolar complex contains a layer of circumferential smooth muscle and sebaceous glands that open through small prominences (*Montgomery* tubercles) [**7**]. Thus, topical corticosteroids may enlargement of the nipple due to the stimulation of sebaceous glands in the nipple. Although the drug induced gynecomastia is common [**8**], but to the best of our knowledge, the enlargement of the nipple due to drugs has not been reported previously.

In conclusion, this is the first case of nipple enlargement due to topical corticosteroids. The clinicians should be aware of an unusual complication caused by a topical corticosteroids.

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