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Solid Facial Edema: A Rare Complication in Acne

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Abstract **Case Report**

Solid persistent facial edema is a rare and poorly understood condition that can be a serious complication of acne vulgaris and rosacea. It manifests as a slow onset of persistent lymphedema in the upper two-thirds of the face and can lead to significant cosmetic disfigurement affecting a patient's self-esteem and mental health. This article presents a case of persistent facial edema in a patient with severe acne and discusses the diagnosis and management of this rare condition.

Keywords: Solid facial edema, acne, isotretinoin.

INTRODUCTION

The place of solid persistent facial edema disease in nosography is uncertain. Sometimes referred to as "solid persistent facial edema" and considered a rare complication of acne, and other times as “Morbihan’s disease” and considered a lymphedematous rosacea. it is a rare and often unrecognizable entity that manifests as a slow onset of persistent lymphedema in the upper two-thirds of the face [1].

Solid persistent facial edema is a rare and poorly understood condition that is difficult to treat and can lead to significant cosmetic disfigurement affecting a patient’s self-esteem and mental health [2]. We report a case of persistant facial edema in a patient with severe acne.

CASE PRESENTATION

A 22-year-old patient presented to our department with persisting edema and erythema of the face that had developed 5 months earlier . The patient had previously treated with topical retinoids for erythematous papules and pustules interpreted as acne vulgaris that had arisen on the forehead, cheeks, chin and the back without improvement.

Dermatological examination revealed indurate erythematous edema of the eyelids, nose, and cheeks, with papulopustular lesions and comedones throughout the face (Figure 1), and involvement of the back (Figure 2) no teleangiectasia were present. The patient was otherwise healthy and not taking any medication.

Laboratory tests, including complete blood count, erythrocyte sedimentation rate, creatine phosphokinase, lactate dehydrogenase, and immunological analysis were all normal, ruling out dermatomyositis. Facial CT scan showed extensive infiltration of craniofacial soft tissues without any suspicious lesions.

Histopathology revealed dermal edema, perivascular and peri-annexal lymphohistiocytic infiltrate, and hyperplasia of sebaceous glands (Figure 3).

Given the typical clinical presentation and histopathological results, a diagnosis of Solid Facial Edema was made. The patient was treated by isotretinoin (0.5 mg/kg/day) with slight improvement after 3 months.

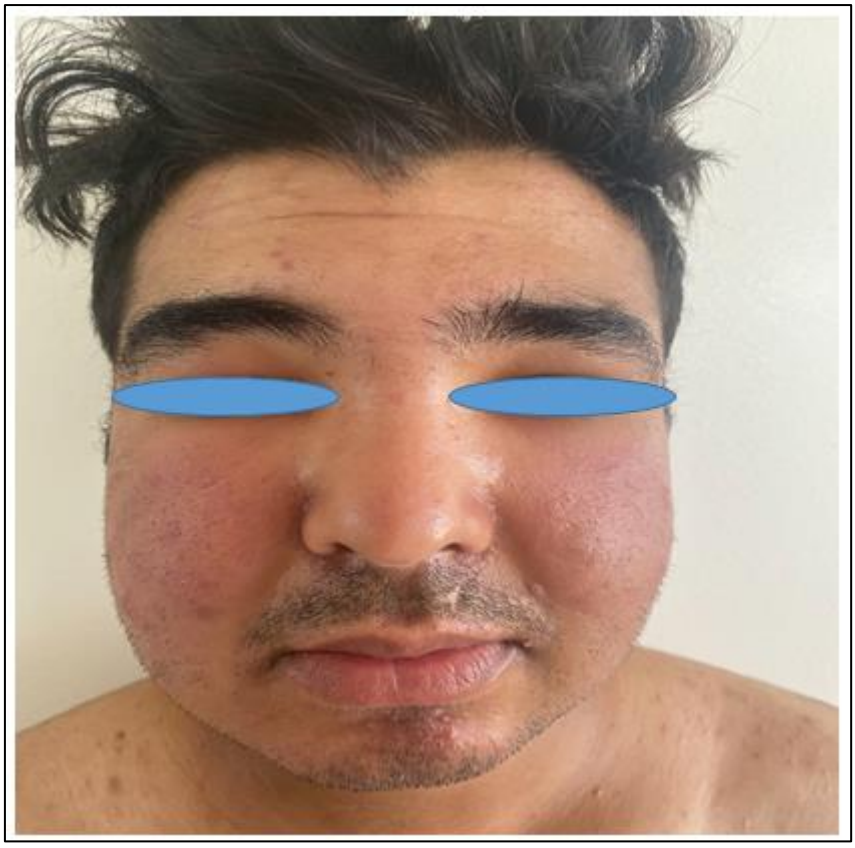

Figure 1: Erythematous solid edema of the face surmounted by populopustular and comedones lesions

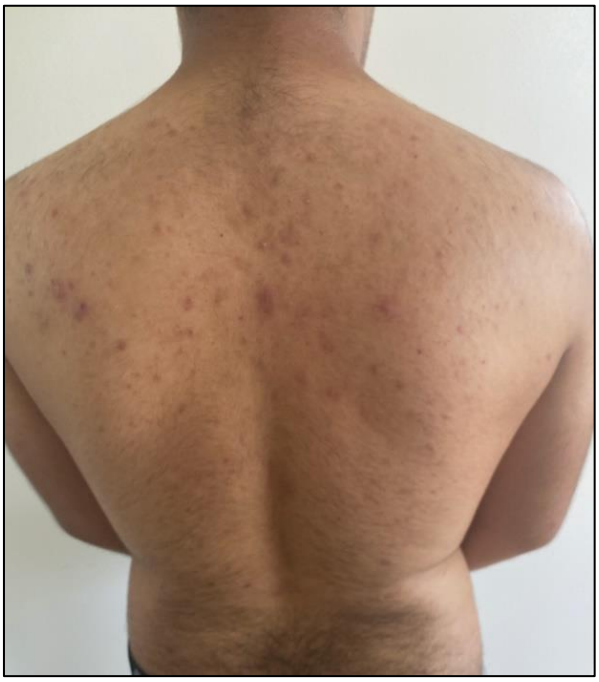

Figure 2: Pustular rash with retentional lesions on the back

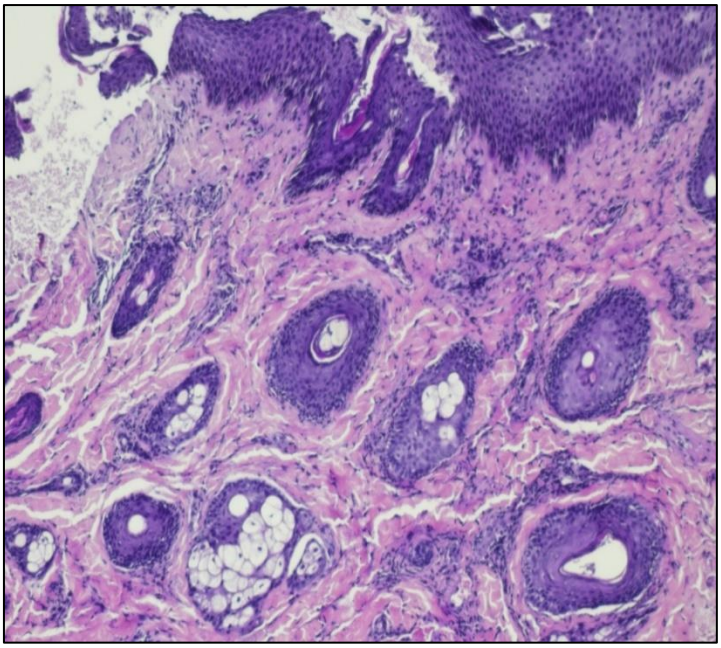

Figure 3: Skin biopsy showing dermal edema, perivascular and peri-annexal lymphohistiocytic infiltrate, and hyperplasia of sebaceous glands

DISCUSSION

Solid facial edema (SFE) is a rare complication of acne vulgaris. It was first observed and published by Connelly and Winkelmann in 1985 [6]. It has also been referred to as Morbihan's disease (referring to the French district where it was first described in 1957) and rosaceous lymphedema [3].

It can be a serious complication of acne vulgaris and rosacea, as well as other congenital, infectious, malignant, and inflammatory processes [4].

This phenomenon cannot be attributed to simple edema caused by inflammation, as the acne lesions are typically moderate to severe. Initially, the edema may be pitting, but chronic inflammation and fibrosis can cause it to become firm and non-pitting [5].

Melkersson-Rosenthal syndrome, lupus erythematosus, contact dermatitis, and other conditions are among the differential diagnoses of solid persistent facial edema [6].

Solid persistent facial edema represents a treatment challenge. Treatment for this condition has included isotretinoin, antihistamines, corticosteroids, antibiotics, interferon gamma, thalidomide, lymphatic massage, compression garments, radiation, and surgical management (including blepharoplasties, lymphatic drainage surgeries, carbon dioxide lasers, and local steroid injections) [7]. Isotretinoin has been found to be the most effective treatment option, whether used alone or in combination with other therapies [8].

Medical management is most efficacious when administered at an early stage of the ailment, prior to the onset of fibrosis and irreversible edema. The amalgamation of isotretinoin for the reduction of acne and lymphatic massage for the mitigation of residual edema has exhibited favorable clinical advancement [9].

A better understanding of the pathophysiological mechanism of this condition will lead to more promising therapies, given its significant psychological and socio-professional impact.

CONCLUSION

Solid persistent facial edema is a rare and poorly understood condition that can lead to significant cosmetic disfigurement and affect a patient's self-esteem and mental health. Medical management has been more successful when used early in the course of the disease before the development of fibrosis and permanent edema. Further research is needed to better understand this condition and develop more effective treatments.

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Conflict of Interest: The author declares that he has no conflict of interest in relation to this article.

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