

Fact vs Fallacy: The Isotretinoin Stigma

Cesar Bimbi*

Moinhos de Vento, Porto Alegre - RS, 90510-002, Brazil.

*Correspondence Author: Cesar Bimbi, Moinhos de Vento, Porto Alegre - RS, 90510-002, Brazil.

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Abstract

Acne is a chronic condition and must be treated as efficiently and quickly as possible, since the delay on low-efficient treatments increase likelihood of scarring, which is an independent factor for emotional overload.

Key words: isotretinoin; nd: yag laser; acne vulgaris; antimicrobial resistance; depression

Introduction

Acne is a chronic condition and must be treated as efficiently and quickly as possible, since the delay on low-efficient treatments increase likelihood of scarring, which is an independent factor for emotional overload. Adolescents presenting with acne report dissatisfaction with self-confidence and self-esteem being at increased risk of depression, anxiety and suicidality [1].

Currently the most powerful tool in combating the disease and its scar consequences is oral isotretinoin treatment (OIT). Systemic and topical antibiotics result in poor outcomes but nevertheless are still mentioned as the pillars for treating all forms of acne. Recent evidences support its less frequent use for an association with skin comorbidities related to microbial dysbiosis and resistant microorganisms [2].

OIT has revolutionized the management of acne offering better quality of life than any other treatment.

Long pulsed Nd:YAG (1064nm) laser has been demonstrated as a safe, highly effective and well tolerated OIT helper targeting scars and inflammation process.

Herein, we report two male patients with severe acne vulgaris who were previously and for several years treated with antibiotic therapy but only got

improvement after OIT. These patients illustrate the dramatic improvements on scars that may be obtained with OIT combined with five laser sessions.

We also comment the unexplained stigma attached to this drug since it is perceived as unsafe and unnecessary by a growing number of patients and/or their parents.

Case Reports

Case 1

A 19-year-old male smoker patient presented to our outpatient clinic with very inflamed nodulocystic lesions and interconnected abscesses on face (Fig. 1, a). Scarring and postinflammatory hyperpigmentation were present. Azithromycin and minocycline had been taken for several months with only modest differences for better and frequent relapses. A 5 months course of isotretinoin 0.5 g (adjusted to 1.0 mg/kg/day during treatment and 0,1mg daily during the time of the laser sessions) taken with food led to the clearing of active lesions (Fig. 1, b). With simultaneous 5 sessions of YAG LASER YAG laser Genesis 18J, 0,8 ms, 8HZ at 4-week intervals the patient obtained significant improvements of scars and the correspondent psychosocial benefits. The patient was satisfied with the esthetic outcome.

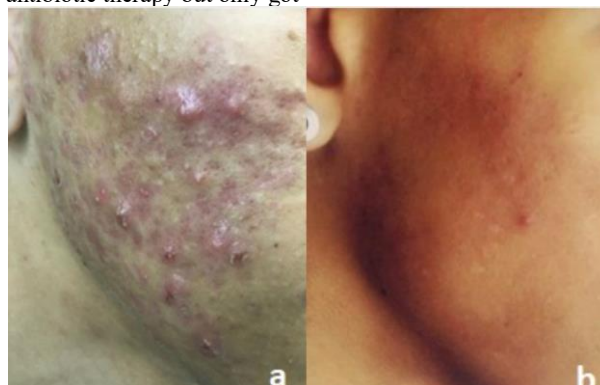


Figure 1: (a) Photos before and after treatment with oral isotretinoin (b) displaying significant improvements of active lesions and acne scars.

Case 2

A 31-year-old metalworker presented with severe recalcitrant acne and painful nodules among multiple dermal rolling-type scar depressions on the face (Fig. 2, a), chest (Fig. 2, b) and upper back, for seven years severely affecting his self-esteem and quality of life. He had been submitted to four

cycles of tetracycline 500 mg twice daily for around 3 months. A 5 months course of isotretinoin 1.0 mg/kg/day during treatment allied to 5 sessions Nd:YAG laser (Genesis) 18J, 0,8 ms, 8HZ at 4-week intervals treatment led to a more rejuvenated skin improving pitted scars with correspondent psychosocial benefits (Figure. 2, c-d).



Figure 2: (a) (b) severe disfiguring nodulocystic acne vulgaris on the face and chest, (c) (d) patient after 5 months of oral isotretinoin plus five LASER sessions - no more active acne persisted.

Discussion

Isotretinoin is in the market for 40 years now and has been approved for severe acne treatment since 1982 in the USA and 1983 in Europe. Before that, many young patients had to deal with the deep and strong emotional impact of disfigurement caused by severe forms of acne vulgaris having to endure disseminated facial inflammatory cysts and abscesses.

Many guidelines and reviews have been published since then demonstrating this drug as highly effective with an acceptable risk/benefit ratio. The issue regarding serious birth defects related to embryopathies of central nervous system, especially on prolonged treatments can be safely circumvented with contraceptive measures during the months of the treatment plus 1 month after cessation.

There is still an important issue of the unexplained stigma attached to this drug since it is perceived as unsafe and unnecessary by a number of patients and especially patient's parents. Teratogenicity is hardly mentioned as a motif of refusal and we hear the unexplained hesitancy both in the case of male and female patients. This treatment hesitancy reminds in some way the anti-vax movements and is merely one more chapter in a long line of aversions towards novel technologies.

LASER is currently been used simultaneously during OIT. Light-based and laser devices are associated with improved patient compliance and are more effective when used in combination therapy.

To the parental decision-making about ISO, it seems crucial to educate patients' families on the make them understand and assess the impact on patient quality of life and mental health and burden of dealing with inflammatory and abscesses (carrying the potential for permanent scarring) on cosmetically sensitive areas since a young age.

Isotretinoin act also in the correction of scars since it reduces inflammation and modulates immune response of lymphocytes Th1/17 also decreasing the

metalloproteinases related to scars development. Some new studies recommend a new tendency to use low daily doses associated with less common mucocutaneous light predictable adverse events of dry eyes, cheilitis, facial erythema nasal dryness and better adherence.

Long pulsed Nd:YAG (1064nm) laser is a safe, highly effective and well tolerated OIT helper to the esthetic outcome in moderate to severe acne [3]. Compared to other laser modalities, the YAG LASER seems to have the advantage of not having very long post-operative recovery periods and as a preparation it is quick and easy to apply and accept by the patient. [12]. The treatments were, and the subjects experienced no pain and no downtime.

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