






Work Intrusion in Dermatology: A Case Report

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ABSTRACT

Intrusion is a common problem in Dermatology, people without a medical degree instruct their customers to use prescription medications or perform procedures without the adequate knowledge of safety parameters. Moreover, most medications can be obtained over-the-counter in Ecuador and thus it becomes of easy access to anyone without any health-related knowledge. Cosmeticians prescribe systemic medications for acne without knowing dosage calculation or adverse effects; furthermore, they perform invasive procedures or use photo-technologies without knowledge of safety parameters to avoid harm.

We will review the case of a patient who was treated for acne by a cosmetician with isotretinoin plus tetracycline, and subsequently underwent localized phototherapy on the face, which is not recommended concomitantly. The complications were We will observe the complications of the above and how the medical staff corrects the adverse effects.

Keywords: Intrusion; Dermatology; Isotretinoin; Tetracyclines; Adverse effects

Abbreviations: UV: ultraviolet; LED: light emission diodes

Introduction

Medical work intrusion is common in third-world countries and occurs often in dermatology; unqualified individuals tend to patients, performs dermatological procedures, and prescribe medication which should be intended only for medical use. Here we highlight a case of acne treated incorrectly by non-medical personnel which lead to consequences which were fortunately solved by dermatologists.

Case Presentation

A 14-year-old male patient with no significant medical history presented with papules, pustules and nodules for about 1 year. The patient's mother took him to a cosmetician who performed a facial and indicated the use of 40mg of isotretinoin and 100 milligrams of minocycline daily. Fourteen days after the

treatment, the cosmetician performed localized phototherapy on the face. It is unknown whether this was a UVB or LED lamp.

One day later, the patient reported pain, left eyelid inflammation which prevented eye opening, and the appearance of erythema as well as clear fluid-filled vesicles on the face, predominantly on the left lower eyelid and cheek without a herpetic distribution.

Three days after start of symptoms, the patient attended the emergency room of the Military hospital in Quito. At the time, multiple papules forming a brownish, post-burn plaque with few micercic crust were noted covering the left eyebrow, cheek, frontal, preauricular and left malar areas (**Figure 1 A&B**). Furthermore, mild left hemifacial edema was noted.



Figure 1: A: Plaque with a meliceric surface on the left eyebrow and ipsilateral cheek, papules with the same characteristics in the central frontal and left preauricular area, accompanied by left upper and lower blepharitis. **B:** Anterior view approach to lesions described above.

On laboratory the patient presented mild leukocytosis (14,000 mm³) with neutrophilia (88%) elevated C-reactive protein (6.4 mg/dl) and Erythrocyte sedimentation rate (16.1 mm/h) Other laboratory values were within normal parameters

The patient was admitted to the hospital with a diagnosis of acute II-degree superficial burn, blepharitis, and impetiginized acne; isotretinoin and minocycline were withdrawn. He was treated with prednisone 40 mg daily for 7 days, topical fusidic acid cream every 12 hours in facial lesions for 15 days plus compresses with Burrow's solution once a day, and he was placed under neurological observation due to the inadequate combination of isotretinoin plus tetracycline. He presented a favorable evolution, with 8 days of follow-up in hospitalization and with apparent complete recovery from the condition, he was discharged (**Figure 2**).

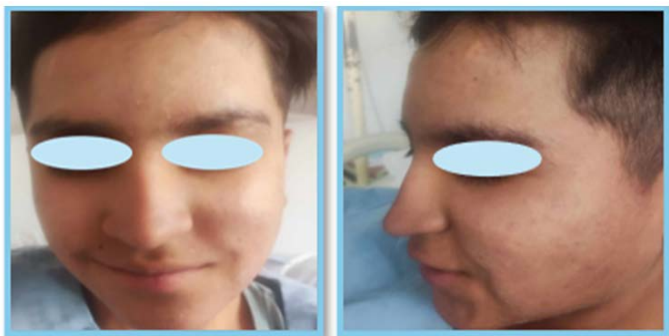


Figure 2: A and B: Resolution of lesions after 8 days of treatment.

Discussion

The combination of tetracyclines with isotretinoin can cause intracranial hypertension and is thus contraindicated¹. Our patient remained hospitalized under neurological observation for 8 days and fortunately did not present any neurological signs or symptoms.

Artificial therapeutic lamps that simulate ultraviolet radiation can produce an effect similar to sunburn²; it is therefore recommended that any ultraviolet radiation therapy located on the skin should be supervised or performed by dermatologists to reduce adverse events such as burns, pain, hyperpigmentation, among others.

Dermatologists are trained to manage and prevent the adverse effects of isotretinoin. Among the most important adverse effects are mucocutaneous events and teratogenicity³, thus they must be prescribed by dermatology medical personnel for use in acne.

Topical antibiotics and corticosteroids can be used for the management of blepharitis⁴, due to the environment in which we find ourselves in Ecuador, fusidic acid cream was chosen for topical treatment for the management of blepharitis.

Conclusions

Acne must be treated by a dermatologist to prevent complications and to treat them properly in case they appear. The general public should be informed that only medical-trained personnel are qualified to prescribe systemic medications.

Drug interactions must be studied before prescribing isotretinoin and antibiotics such as tetracyclines since both are indicated for the treatment of acne but must not be used concomitantly as their combination can cause neurological damage such as pseudotumour cerebri.

Ethical permission: The patient has given informed consent during his treatment for the publication of this article.

Conflict of Interest: The authors declare no conflicts of interest.

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