

Severe chemical burns secondary to unregulated online peeling treatment

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ABSTRACT

This case highlights the consequences of unregulated, online-acquired topical treatments. This is exemplified by a 29-year-old woman who suffered from severe chemical burns to both hands after using a peeling solution purchased without a prescription. The absence of regulations allowed the sale of this product, leading to misuse and severe adverse effects. Such incidents show the urgent need for a regulation that would reduce the risks associated with online purchases of medical products. We need to register and make case reports whenever we see similar cases to ensure the authorities are aware of the extent of this problem.

Key words: Internet, Chemical burn, Peeling, Africa

INTRODUCTION

This case highlights the consequences of unregulated, online-acquired topical treatments exemplified by a 29-year-old woman who suffered from severe chemical burns to both hands after using a peeling solution purchased without a prescription. The absence of regulations allowed the sale of this product, leading to misuse and severe adverse effects. Such incidents show the urgent need for a regulation that would reduce the risks associated with online purchases of medical products.

This case points out the urgent need for enhanced regulation of the online sale of medical products to protect consumers from harmful side effects. Strengthening regulatory frameworks and raising awareness among consumers about the risks associated with unregulated products are vital steps in preventing similar incidents in the future.

CASE REPORT

A 29-year-old healthy woman, currently living in Denmark yet originally from South Sudan, was promptly referred to a dermatologist after presenting with chemical burns affecting both hands. The patient had no documented history of allergies. According to the patient, she applied a peeling solution named New Light Zaban Cream, purchased online from Africa, for the hyperkeratotic condition of her hands. This peeling agent, procured online, was acquired without a prescription due to lack of regulation.

The patient applied the peeling solution for a duration of four to five days prior to the onset of symptoms. The patient reported that she did not follow the prescribed application frequency, applying the peeling product 6–7 times daily instead of adhering to the recommended three times daily regime.

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Figure 1: (a) Bilateral chemical second-degree burns accompanied by ruptured vesicles on the palmar area. (b) Dorsal side of the right hand with chemical second-degree burns accompanied by ruptured vesicles.

Notably, the day prior to seeking dermatological consultation, she began experiencing a sensation of burning and swelling localized to the areas where the topical peeling solution was applied. In response to severe pain, the attending general practitioner administered subcutaneous morphine at a dosage of 10 mg prior to consulting with the dermatologist.

Upon examination, the patient exhibited severe second-degree burns accompanied by ruptured vesicles. The affected areas encompassed the palmar surfaces of both hands, extending dorsally to the proximal regions of the fingers, terminating just distal to the metacarpophalangeal joints (Figs. 1a and 1b). The affected skin was pale and non-vital.

Given the severity and extent of the burns, the patient was promptly referred to the emergency department for the immediate assessment and management of the burns. In the emergency department, partial debridement of the necrotic tissue was undertaken. However, due to the patient's pain, complete removal of all necrotic tissue was not possible. Subsequently, both hands were treated conservatively with a moist Vaseline dressing, which was applied for ten days.

Upon removal of the dressing, residual necrotic tissue was noted to be detached. The patient began a long recovery process extending over several months.

DISCUSSION

This case highlights the consequences of unregulated, online-acquired topical treatments, exemplified by a 29-year-old woman who suffered from severe chemical burns to both hands after using a peeling solution purchased without a prescription. The absence of regulations allowed the sale of this product, leading to misuse and severe adverse effects. Such incidents show

the urgent need for a regulation that would reduce the risks associated with online purchases of medical products.

Studies have highlighted the dangers associated with unregulated topical treatments available online. For instance, research by Makwana et al. demonstrated the significance of urgent need of regulation of online-acquired, over-the-counter topical products in order to reduce cutaneous adverse drug reactions [1]. Skin lightening is another popular topical treatment practiced by some African individuals, yet its unregulated status frequently results in adverse reactions [2]. Most of these products are available online without regulation posing a significant health risk to their users.

This case serves as a reminder of the potential dangers inherent in the unregulated online marketplace for medical products. Without proper regulation, consumers are left vulnerable to encountering products with insufficient safety information or inappropriate usage instructions. Misusage as observed in this case may lead to severe adverse effects, requiring urgent medical intervention [3].

In conclusion, this case points out the urgent need for enhanced regulation of the online sale of medical products to protect consumers from harmful side effects [4]. Strengthening regulatory frameworks and raising awareness among consumers about the risks associated with unregulated products are vital steps in preventing similar incidents in the future [5].

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

REFERENCES

1. Makwana VS, Bhadja SG, Songara BM, Patel ZR, Vyas AP. The Spectrum of cutaneous adverse drug reactions following the application of topical medications: An observational study at a tertiary care center. *Cureus*. 2022;14:e28139.
2. Yusuf MA, Mahmoud ND, Rirash FR, Stoff BK, Liu Y, McMichael JR. Skin lightening practices, beliefs, and self-reported adverse effects among female health science students in Borama, Somaliland: A cross-sectional survey. *Int J Womens Dermatol*. 2019;5:349-55.
3. Robinson EP, Chhabra AB. Hand chemical burns. *J Hand Surg Am*. 2014;40:605-12; quiz 613.

4. Lotfi M, Mirza Aghazadeh A, Davami B, Khajehgoodari M, Aziz Karkan H, Khalilzad MA. Development of nursing care guideline for burned hands. *Nurs Open*. 2020;7:907-27.
5. Seité S, Deshayes P, Dréno B, Misery L, Reygagne P, Saiag P, et al. Interest of corrective makeup in the management of patients in dermatology. *Clin Cosmet Investig Dermatol*. 2012;5: 123-8.

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