



Comment and Controversy

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The lipstick effect during COVID-19 lockdown

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Abstract Although consumer spending typically declines during times of crisis, some observers have noted the tendency of consumers to spend more on less costly luxury goods instead, calling it the “lipstick effect.” E-commerce sales in beauty and personal care categories, compared to pre-COVID-19, saw an increase. The mass lockdowns across many states in the United States resulted in hospitals and cosmetic clinics suspending many services. We present several patients who developed complications following home-administered cosmetic procedures and presented via telemedicine clinic at the Department of Dermatology at Boston Medical Center in May 2020. The first case follows a patient who had platelet-rich plasma concentrate injected into her face by an unauthorized, presumed aesthetician in training. The second and third cases follow patients purchasing products from unregulated e-commerce retailers to self-administer injectable fillers and perform trichloroacetic acid chemical peels, respectively. We discuss the impact of social media in conjunction with extensive misinformation along with easily accessible products available on the Internet, and how this combination has encouraged self-injurious behavior and its consequences while lacking any means of accountability. This paper aims to encourage the spread of patient education and limit personal harm from self-administration of potentially injurious procedures.

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Introduction

The COVID-19 pandemic has disrupted lives all over the world, creating both a public health crisis and an economic crisis. Although consumer spending typically declines during such times, some observers have noted the tendency of consumers to spend more on less costly luxury goods instead. The “lipstick effect” was first noted by Leonard Lauder,

chairman of The Estée Lauder Companies Inc. Proponents of this theory refer to the fact that after the 9/11 attack, statistics showed an 11% rise in demand for lipsticks. Later, during the economic recession of 2008, Estée Lauder again noted a rise in the company’s sales of lipstick. Similarities can be drawn to the Great Depression, where sales of cosmetic goods rose while the economy was experiencing some of its darkest days.¹

In April 2020, the US Department of Commerce found that the first-quarter gross domestic product had contracted by 4.8%, an important signal of the pandemic’s deleterious effects on the American economy.² Amazon reported a 70%

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increase in its e-commerce sales in beauty and personal-care categories compared with pre-COVID-19, which was 5% higher than the increase seen in its total sales.³ Sephora US online sales during the pandemic were reportedly up by 30% versus 2019.⁴

During March 2020, there were mass lockdowns in many US hospitals, and the health care system faced unprecedented financial stress: battling rising COVID-19 cases and procuring personal protective equipment. Hospitals suspended outpatient clinics and canceled surgical procedures deemed nonemergent. Though doctor-patient interactions slowly resumed, largely in the form of telemedicine clinics, many cosmetic clinics remained closed. Unable to seek professional care, many felt compelled to search for easily obtained yet riskier options. This article discusses three patients who developed complications following home-administered cosmetic procedures and presented to the Dermatology Telemedicine Clinic initially at Boston Medical Center in Boston, Massachusetts in May 2020. This self-injurious, dangerous behavior elicited by the combination of extensive misinformation and easily accessible products available on the Internet can result in disfigurement and detrimental consequences.

The first patient was a 46-year-old African-American woman who presented to a telemedicine clinic due to complications after injecting platelet-rich plasma concentrate to her face at home. The procedure was done 8 weeks prior by a personal acquaintance who was an unauthorized aesthetician in training at the time. A few days after the procedure, the patient developed swelling in her left cheek with evolution to abscess formation that was later treated with antibiotics and intralesional triamcinolone acetonide. Although the treatment greatly improved the cosmetic outcome, the patient continues to suffer from some nodularity and post-inflammatory hyperpigmentation.

The next patient was a 48-year-old African-American woman with a history of systemic sclerosis and cutaneous lupus who presented to our telemedicine clinic 1 week after developing complications after self-administration of presumed hyaluronic acid filler on her bilateral temples and cheeks, which she had purchased over the Internet. The patient developed a warm, inflamed swelling on her right cheek, which progressed to form a large abscess. She was treated with oral antibiotics but had residual erythema with surrounding hyperpigmentation (Figure 1).

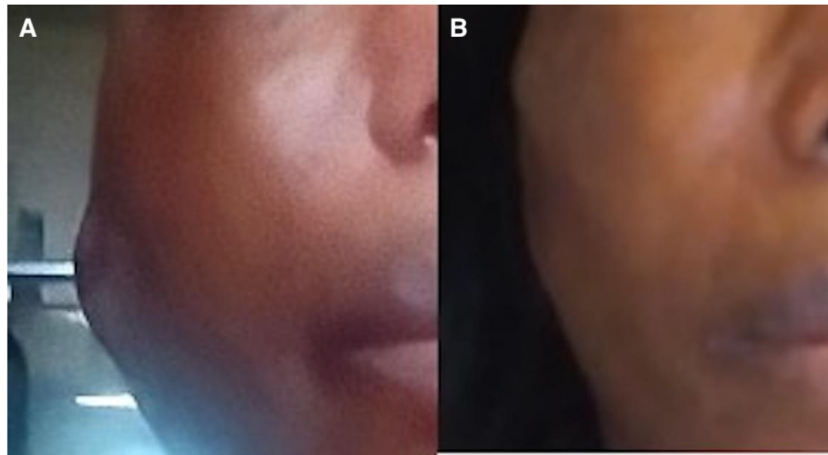
The last patient was a 38-year-old White woman with a history of cystic acne and atrophic acne scarring who presented to our telemedicine clinic after developing complications from self-administered trichloroacetic acid 80% peels at home. The treated site developed redness, crusting, and scabbing (Figure 2). She was later treated with fractionated nonablative laser to improve the cosmetic outcome but continues to experience long-term permanent sequelae from the self-injurious procedure.

Discussion

Veblen's theory of the leisure class is the foundation of consumer research and sheds light on how people use wealth and goods to compete with each other and to bolster their social status.⁵ Luxury goods often draw on the principles of art and magic to elicit a sense of desirability and exclusivity. The COVID-19 pandemic resulted in a nationwide economic slowdown. Retail sales, which primarily track sales of consumer goods, declined by 8.7% from February to March in 2020, the largest monthly decrease seen since the US Census Bureau started tracking this data.⁶ Surprisingly, even during months of quarantine and isolation, as masks and face coverings became the norm, people continued to spend money on products to enhance their attractiveness. Consumers turned toward more affordable luxuries, seeking instant gratification and feeding into the "lipstick effect."¹

The COVID-19 pandemic abruptly shifted many of our daily activities to an online world, dramatically increasing the use of video conferencing. Zoom's daily active users grew from 10 million in December 2019 to over 300 million in April 2020.⁷ After spending hours on video meetings with a constant close-up of their faces on digital screens, people began to focus on perceived flaws that went previously unnoticed, leading to skewed perceptions of their appearance.⁸ The spread of social media continuously allows the public to scrutinize the details of other people's lives even in isolation. Individuals often feel the pressure to project a life of excess and indulgence and create a "social-media persona" contrary to their reality.^{9,10} Others viewing such accounts may be prone to compare their reality to that projected on these platforms, often negatively impacting their self-confidence and sense of accomplishment. Unlike the filtered and perfected selfies of social media, Zoom displays an unedited version of oneself. This can have drastic effects on self-image dissatisfaction and desire to seek cosmetic procedures. A recent Saudi Arabian study¹¹ reported nearly 10% of its survey participants were willing to undergo cosmetic surgery during the pandemic; the consensus was found to be higher among women and those diagnosed with body dysmorphic disorder. Patients who were previously scheduled for procedures cited quarantine as convenient for recovery and were found to have contacted plastic surgery centers and surgeons themselves via emails, phone calls, and text messages.

Numerous unlicensed individuals are performing cosmetic procedures on others or themselves, often with serious consequences. We present a case series of three patients with self-injurious behavior due to their desire to gain benefits from cosmetically enhancing procedures without professional assistance. To date, all patients suffer from continued dyspigmentation and/or scarring, some of which may be permanent. While cosmetic procedures such as fillers have a myriad of complications including vascular occlusion of ophthalmic and retinal arteries, these procedures tend to be



A. Large abscess on right cheek after at home hyaluronic acid filler injection
B. Results after a week of treatment with cephalexin 500mg PO Q6hr

Fig. 1 (A) Large abscess on right cheek after at-home hyaluronic acid filler injection. (B) Results after a week of treatment with cephalexin 500 mg orally every 6 hours.



A. Deep chemical burns on right cheek after at home trichloroacetic acid peels
B. Results 10 months after 3 fractionated non-ablative laser treatments

Fig. 2 (A) Deep chemical burns on right cheek after at-home trichloroacetic acid peels. (B) Results 10 months after three fractionated nonablative laser treatments.

very safe with no to minimal side effects when performed by licensed professionals.¹²

This case series highlights issues identified by other studies, indicating that many patients agree to cosmetic procedures by untrained personnel due to the cheaper price offered.¹³ As a result, the burden of this issue may disproportionately affect people of lower socioeconomic status. There is also a vast pool of misinformation readily available on the Internet in the forms of how-to videos and instructional web pages that teach one how to self-administer these cosmetic procedures. This factually incorrect information is often spread by self-proclaimed and unverified experts. The existence of e-commerce websites has made procurement of heavily regulated products such as dermal fillers and hazardous compounds, including trichloroacetic acid and many others, exponentially easier, with many retailers selling counterfeit products of unknown quality, containing banned ingredients. This engenders a situation that predisposes vulnerable

patients to be taken advantage of and suffer unintended and undesired consequences.

Conclusions

The Internet has birthed a detrimental model, where users of social media can easily create unhealthy comparisons with others. Misinformation is easily accessible, as is access to illegally traded products. There should be changes that hold individuals broadcasting misinformation accountable. While people's desire to look beautiful and their attractiveness-seeking behaviors are unlikely to change, the availability of illegally traded products and cosmetic procedures can be diminished with regulatory efforts carried out by both law enforcement and the communities themselves. Dermatologists should educate patients on the importance of performing

cosmetic procedures in a safe environment with trained professionals, especially during the pandemic.

References

1. Econowmics. The lipstick effect: what is it all about? Available at: <https://econowmics.com/the-lipstick-effect/>. Accessed April 20, 2021.
2. U.S. Department of Commerce. Statement from U.S. Secretary of Commerce Wilbur Ross on Q1 2020 GDP advance estimate. Available at: <https://www.commerce.gov/news/press-releases/2020/04/statement-us-secretary-commerce-wilbur-ross-q1-2020-gdp-advance>. Accessed April 20, 2021.
3. Rao P. Has the Amazon beauty reckoning finally arrived? Available at: <https://www.glossy.co/beauty/has-the-amazon-beauty-reckoning-finally-arrived/>. Accessed April 20, 2021.
4. Rao P. How Sephora is incubating the 'next guard' online. Available at: <https://www.glossy.co/beauty/how-sephora-is-incubating-the-next-guard-online/>. Accessed April 20, 2021.
5. Veblen T, Chase S. *The Theory of the Leisure Class: An Economic Study of Institutions*. New York, NY: Modern Library; 1934.
6. Bauer L, Broady KE, Edelberg W, et al. Ten facts about COVID-19 and the U.S. economy. Available at: [https://www.broo\(?PMU?\)kings.edu/research/ten-facts-about-covid-19-and-the-u-s-economy/](https://www.broo(?PMU?)kings.edu/research/ten-facts-about-covid-19-and-the-u-s-economy/). Accessed April 20, 2021.
7. Iqbal M. Zoom revenue and usage statistics (2021). Available at: <https://www.businessofapps.com/data/zoom-statistics/>. Accessed May 10, 2021.
8. Bankhead C. Another COVID-19 side effect: 'zoom dysmorphia.' Available at: <https://www.medpagetoday.com/dermatology/generaldermatology/92463>. Accessed May 10, 2021.
9. Yazdavar AH, Mahdavinejad MS, Bajaj G, et al. Multimodal mental health analysis in social media. *PLoS One*. 2020;15:e0226248.
10. Ross NA, Todd Q, Saedi N. Patient seeking behaviors and online personas: social media's role in cosmetic dermatology. *Dermatol Surg*. 2015;41:269–276.
11. Gelidan AG, Mrad MA, Kattan AE, et al. The public's awareness and willingness to undergo plastic surgery procedures during the COVID-19 pandemic [published correction appears in *Plast Reconstr Surg Glob Open*. 2021;9:e3411]. *Plast Reconstr Surg Glob Open*. 2020(8):e3170.
12. Sito G, Manzoni V, Sommariva R. Vascular complications after facial filler injection: A literature review and meta-analysis. *J Clin Aesthet Dermatol*. 2019;12:E65–E72.
13. Mayer JE, Goldberg DJ. Injuries attributable to cosmetic procedures performed by unlicensed individuals in the United States. *J Clin Aesthet Dermatol*. 2015;8:35–37.