

#Laser Surgery: How Lasers are Portrayed on Instagram

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INTRODUCTION

Instagram has become one of the primary means by which the public access information, societal trends, and entertainment content. One particular trend, posting content about minimally invasive cosmetic procedures, specifically laser surgery, is frequently highlighted on social media in the form of before-and-after photos, procedural videos, educational posts, and office advertisements.¹ While this content can be helpful in terms of patient education as well as advertising value for the clinic, social media posts are not standardized and carry a high risk of misinformation.¹ Additionally, given the increased technological savviness of our patient population, social media has become a useful platform to disseminate educational tools and knowledge about various dermatologic procedures, including laser surgery. Thus, it is important for dermatologists to understand how various procedures are portrayed on social media.

The goals of this study were to 1) determine how skin laser surgery is discussed on Instagram, 2) determine the credentials of those posting content about laser surgery, and 3) determine if laser surgery is accurately portrayed.

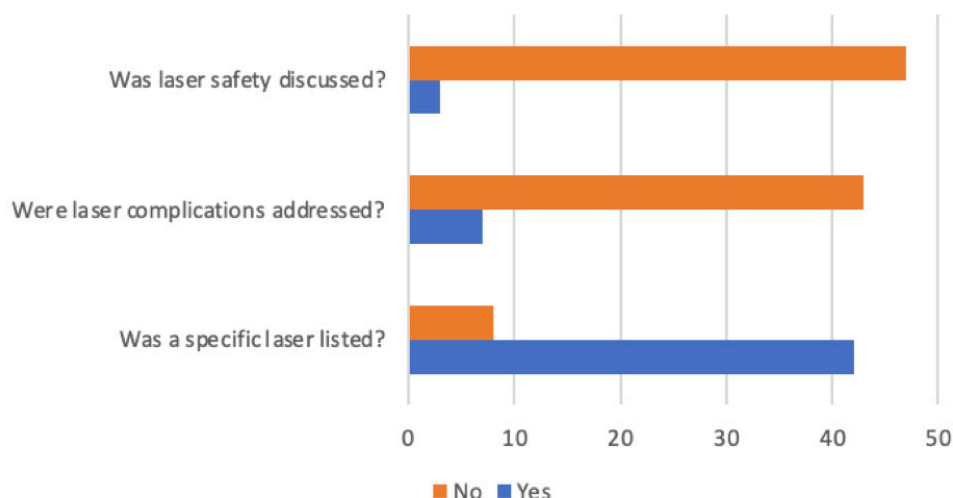
MATERIALS AND METHODS

On April 7, 2022, a single Instagram search using the term #lasersurgery was performed. All English-language posts within the "Instagram Top Post" section were included. Duplicate posts and those that did not show or discuss laser surgery (eg, those that discussed skin cancer excisions, unrelated procedures, and skin cancer education posts) were excluded. Data was collected on author demographics and post details, along with the number of views/likes and the date posted.

RESULTS

The hashtag #lasersurgery had 26,691 total posts on Instagram. The top 50 posts that met the inclusion criteria were included in analysis. When applicable, posts had an average of 270 likes (range: 103-678). The number of likes were hidden in 2 posts and another 2 posts were graded on number of views instead of number of likes and these averaged a total of 6010 views. The top posts were uploaded an average of 420 days prior to our query. All posts (50/50, 100%) were created by physicians in a doctor's office setting (48/50, 96%) versus a MedSpa (2/50, 4%), and in line with practice trends. Dermatology was the most frequently cited specialty (40/50, 80%), followed by oculoplastic

FIGURE 1. Specific details about laser surgery provided in Instagram posts.



surgery (4/50, 8%), plastic surgery (3/50, 6%), dentistry (2/50, 4%), and family medicine (1/50, 2%). The majority of posts were generated in the United Kingdom (22/50, 44%), followed by the United States (21/50, 42%), Australia (4/50, 8%), Canada (1/50, 2%), the Czech Republic (1/50, 2%), and the Philippines (1/50, 2%). Post content consisted mainly of before and after pictures (44/50, 88%) and addressed the following topics: acne scarring, keloids, photodamage, port wine stain, telangiectasias, brown spots, veins, rhinophyma, rhytids, xanthelasma, café au lait macule, nevus of Ota, and various periodontal applications. Laser-induced complications and laser safety considerations were addressed in a minority of posts, only 14% and 6%, respectively. Figure 1 features the laser surgery details provided in the Instagram posts.

DISCUSSION

This study suggests that skin laser surgery, in general, may be adequately portrayed on social media, however, laser safety specifically is not. Even though adverse events are uncommon, some are inevitable when performing laser and light-based procedures. The most commonly litigated minimally invasive cosmetic procedure in the US is laser hair removal. In the 2014 publication by Jalian and colleagues, it was determined that nonphysicians were the providers in almost half (42.9%) of litigation cases.² Given variable, and in our opinion inadequate, regulations across state lines surrounding laser operator credentials, aesthetic procedures are increasingly being performed by nonphysician providers. In a recent publication by Rossi and colleagues in 2019, it was suggested that when it comes to minimally invasive cosmetic procedures, nonphysicians may have a higher rate of adverse events.³ Furthermore, it was found that adverse events are more likely to occur in settings outside of a physician's office, usually in a MedSpa.³

Adverse events from laser surgery range from minimal and reversible to severe and irreversible. Minimal events include transient pigment alteration, bruising, pain, and swelling. However, the severe end of the spectrum includes ocular injury affecting vision and irreversible scarring. A comprehensive understanding of ocular anatomy and principles of laser safety are essential for practitioners who offer cosmetic laser treatments in their practice. Most eye injuries associated with laser surgery are related to either improper laser technique or lack of appropriate eye protection.⁴ Recently, efforts have been proposed to help mitigate these errors, by incorporating procedural checklists.⁵ However, based on Instagram content, social media awareness of such risks from laser surgery and efforts to allay them may be lacking.

In our search, most of the content was posted by physicians in a doctor's office setting, and a wide variety of laser surgery topics were addressed. However, laser safety considerations and laser-induced complications were only discussed in a minority of

posts, 14% and 6%, respectively. This could be cause of concern, as patients may inaccurately presume that laser procedures are without risk and capable of being performed by any provider regardless of credentials. Given the increasing technical connectedness of our patient population, as well as the increase in younger patients seeking laser and light-based procedures, many patients are resorting to social media for information.

Finally, in addition to public education, social media can serve as a helpful marketing tool. Instagram remains the 6th most popular social media network in the world with more than 60 percent of Americans admitting to using it daily.¹ We encourage dermatologists to continue to highlight their expertise in minimally invasive cosmetic procedures, in particular, laser surgery to spread patient awareness and education. Instagram has proved to be a useful and relatively accurate portrayal of laser surgery and we as a specialty should continue to add to this body of work under the hashtag "#lasersurgery." This can be accomplished by briefly defining the procedure, including knowledge of procedure risk and safety measures when necessary, and featuring before and after photographs.

DISCLOSURES

The authors have no relevant conflicts of interest to declare

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