Analysis of Popular Social Media Addressing Breast Augmentation, Implants, and Anaplastic Large Cell Lymphoma

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Background: Social media is part of modern life, for better or worse. Patients seek counsel on treatments, their side-effects, and the surgeon performing the surgery. Previous study has found several “dos” and “don’ts” regarding social media. The aim of this study was to specifically look for social media posts addressing breast augmentation, breast implants, and breast implant associated anaplastic large cell lymphoma (BIA-ALCL). The aims of this study were to examine social media posting regarding BIA-ALCL and to analyze the ways general public receive information regarding this disease.

Methods: A prospective analysis of 3 popular, global social media networks was performed, using the key phrase in English “anaplastic large cell lymphoma” or “ALCL” or “#ALCL.” Three hundred posts related to breast cancer published on Instagram, YouTube, and Facebook in June 2018 were assessed by the following parameters: author identity, subject, “social media currency” (likes, shares, comments), presence of special effects (videos, photographs, research, etc.).

Results: Most posts were posted by professional entity (ie, plastic surgeon, company, or general practitioner), with YouTube being the social media least used by patients (P < 0.001). Facebook was the only social network that had more posts authored by non-professional authors (P < 0.001). Social currency did not change between the professional and non-professional authors. The highest return for investment was seen on Instagram (P < 0.001, “likes” only). YouTube, having the most posts published by professionals, was more positive toward breast augmentation and the use of implants (P < 0.001).

Conclusions: Social media is here to stay and not a trend. It is a tool for the patient when searching for treatment and surgeon. It would be wise to invest and understand these communication platforms, since this is where our patients are, and the way they are researching. (Plast Reconstr Surg Glob Open 2021;9:e3571; doi: 10.1097/GOX.0000000000003571; Published online 10 May 2021.)

INTRODUCTION

The use of social media and social networks is part of modern life. More people are using those channels to get information, including information regarding health procedures and surgeries. In fact, it has been shown that using social networks can make it easier for patients and increase awareness.

Plastic surgeons are known to possess qualities such as creativity and adaptability to new techniques and technologies, which are advantageous to the patient. There is an increase in social media usage by breast cancer patients, but doctors and especially many surgeons are still learning how to use this tool effectively. Patient-centered portals such as Healthgrades and RateMDs give users the ability to both find and share information about physicians.

Studies have investigated the prevalence of “fake news,” and misguided information and have shown that more than a third of the sites that present information about breast augmentation contain false or misleading information. The authors have no financial interest in relation to the content of this article. The study did not receive any financial support.
A previous study done by our group found a relation between the author’s identity (e.g., plastic surgeon, company, or celebrity) and social currency, and the use of specific network and the amount of social currency received.1

METHODS

A prospective analysis of 300 posts on 3 popular and global social media networks was performed. A search for English-language posts using the key phrase “anaplastic large cell lymphoma” or “ALCL” or “BIA-ALCL” was conducted on Facebook and YouTube, and with the hashtag “#ALCL” or “#BIA-ALCL” on Instagram during 1 week of June 2018. Exclusion criteria included indecipherable posts, re-posts, and posts unrelated to the terms used in the search. The first 100 recent posts on each of the 3 social media platforms that answered the criteria above were selected for a total of 300 posts. Each post was assessed by 2 separate plastic surgeons for the following parameters: author identity, theme (self-promotion, education, commercial, personal post, other. Each post could be classified in several categories), “social media currency” (likes, shares, comments), and attitude toward breast augmentation and implants (positive, negative, neutral).

Student’s t-test was applied for continuous variables, and analysis of variants (ANOVA) for several groups. Chi-square test was used for categorical variables analysis. P value of 5% or less was considered statistically significant. The data were analyzed using the SPSS (version 23; SPSS Inc., Chicago, Ill.).

RESULTS

Three hundred posts related to breast cancer on 3 different popular social media sites, including Facebook, Instagram and YouTube, were analyzed during one working week of June 2018. Most of the posts on Facebook were published by non-professional authors (52), but other social media had most posts published by professionals (53 and 73, Instagram and YouTube, respectively). The complete description of authors’ identity is listed in Figure 1.

The overwhelming majority of posts dealing with breast implant–associated anaplastic large cell lymphoma (BIA-ALCL) were educational, with 85%–93% of all posts classified as such. Instagram had 3 posts that were personal posts, and 12 self-promotion posts. The difference between the social networks was not statistically significant.

Attitude toward breast augmentation and implants was very similar on Facebook and Instagram, with 42%–45% and 45%–46% positive mentions, respectively. However, on YouTube the overall mentioning of breast augmentation and implants was more positive, with 66% of post supporting the use of implants and breast augmentation (P = 0.007). Attitude to breast augmentation and implants is presented in Figure 2.

YouTube tended to be a more physician-centered media, with no sources mentioned other than the physician explaining the subject (60% of posts, P = 0.06). It was also the least patient-centered media, with posts relating personal stories representing only 11% of the posts analyzed, compared with 23% on Facebook and 26% on Instagram (P = 0.04). Full analysis of sources is in Table 1.

Social media currency is the influence of the post on other users of the social network. It can be measured by positive interactions (“likes”), sharing the content and comments on the post. When analyzed by the identity of the author, there was no difference between all authors (P = 0.16–0.67), emphasizing the egalitarian nature of the social networks. Nevertheless, Instagram posts were getting more attention, but only in the “like” amount (P < 0.001). It is worth noting that Instagram and YouTube shares were not analyzed. Full Social currency parameters and comparison are in Table 2.
DISCUSSION

The Internet, along with social media networks, has become an integral part of modern society, including the medical profession. Social media has become an important source of information for patients who expect personal medical care with an ongoing patient-physician relationship and instant online availability.

BIA-ALCL is a highly professional area, and as such, many patients feel unsure about this disease, its course, and treatments. Nevertheless, BIA-ALCL has a lot of social traction, with patients actively seeking treatments for that disease.

Unlike the previous study by our group, most posts in the study were by a professional author, being a doctor or a company. Nevertheless, plenty of patient-centered information...
network. Facebook’s top 5 has 2 posts that mention BIA-ALCL; but the main focus is on breast-implant-associated illness (BII) and not on BIA-ALCL. BII was not mentioned in a top 5 post on any other social network. Instagram’s top 5 included informative and educational posts, with 3 of them using a female patient photograph. Two posts of the Instagram top 5 were of private authors, and 3 were plastic surgeons. YouTube’s top 5 had one company post, 1 private post, and 3 posts by plastic surgeons. Combining all these data has led the authors to suggest “dos and don’ts” regarding BIA-ALCL and the social media, presented in Table 3.

Table 3. Dos and Don’ts When Addressing BIA-ALCL in Social Media

|   | Do                                                                 | Don’t                                                                 |
|---|--------------------------------------------------------------------|----------------------------------------------------------------------|
|   | ✓ Use Instagram                                                     | ✓ Use YouTube as the first “go-to” social network                     |
|   | ✓ Cooperate with patients, and use their real picture              | Be self-promotional                                                   |
|   | ✓ Use personal story or patients’ story                            | Use jokes                                                             |
|   | ✓ Be informative and educational                                    |                                                                      |

CONCLUSIONS

BIA-ALCL is a malignant disease. As such, one would think it should be the subject of “serious” and educational videos. Our data suggest that even in the “heavy” subjects such as BIA-ALCL, there is a room and need for use of the more patient-centered posts and stories, as those are the ones that gather the most interest. Those patient-centered posts can be the gateway to the more educational videos, resulting in a more informed patient.

Social media is here to stay. It is not our role to decide where our patients gather their information. It is our job to be where they decide to look for information and supply the right information, in the most palatable way.

This is not limited to the subject of BIA-ALCL alone. As plastic surgeons, our field is full of details requiring specialty and learning. Understanding each platform, its audience and topics relevant to it will let us know the “how to do” in relation to the specific combination of platform and subject. In turn, knowing the “how” will allow us to educate our patients and allow for a better understanding of the procedures being performed.

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Table 2. Social Currency by Author and Social Network

|                         | Likes | Comments | Share |
|-------------------------|-------|----------|-------|
| By authors’ identity    |       |          |       |
| Private                 | 33.67 | 6.33     | 2.66  |
| Company                 | 25.53 | 7.82     | 6.24  |
| Plastic surgeon         | 73.11 | 3.01     | 0.35  |
| General doctor          | 51.33 | 4        | 0     |
| Science article         | 171   | 24       | 69    |
| Patient                 | 41.93 | 7.7      | 3.73  |
| P                       | 0.67  | 0.47     | 0.16  |
| By social network       |       |          |       |
| Facebook                | 16.04 | 4.42     | 6.14  |
| Instagram               | 132.14| 6.62     | 0     |
| YouTube                 | 12.27 | 3.57     | 0     |
| P                       | <0.001| 0.4      | N/R   |
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