

Looking in the Mirror: An Evaluation of Vanity in Patients Receiving Botulinum Toxin Treatments

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Botulinum toxin treatments have a history of being veiled in secrecy and viewed as an indulgence for the elite and vain, similar to the past conception of hair coloring. The objective of this survey was to assess if a patient receiving botulinum toxin treatment is more image conscious than a typical American woman by comparing the percentage of women who color their hair and receive botulinum toxin treatment to the percentage of women from American society at large who dye their hair. Women planning to undergo injections with a botulinum toxin were asked to complete a 4-question survey. They were asked about their current hair color, if it was their natural hair color, what their natural hair color was, and how long they have had their current hair color. One hundred thirty-four women who received treatment with botulinum toxins were surveyed. Approximately 71% of patients currently dye their hair, with blonde being the most popular color. Our findings suggest that our patients are similar to the national average with regard to hair coloring and, one could infer, are no more image conscious.

Botulinum toxin has long been recognized as one of the deadliest toxins in the world and, more recently, as a safe way to remove wrinkles and shape the face. Despite its meteoric rise in popularity as an aesthetic

procedure, with use increasing more than 3800% in just over a decade,¹ there has been a stigma of vanity associated with patients who receive treatment with botulinum toxins. This misconception has been steadily decreasing over time in large part because of increased public awareness and a decrease in cost of treatment, shifting the practice from a luxury for the rich to a therapy for the middle class. In many ways, the acceptance and popularity of botulinum toxins appear to be evolving in a similar fashion to the rise of hair coloring in America.

Hair dyeing and bleaching has been practiced from 4th century BC Greece to 19th century Victorian England.² Although lauded and heralded throughout time, it was often seen as a means to emulate the aristocracy and thus was associated with the upper class. Hence, for much of western history, hair coloring served

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as a divisive measure to separate economic and social classes. The elite members of Elizabethan society were known to dye their hair a fiery red to match Queen Elizabeth's wigs.²

The United States has not always shared in this celebration, and although it is very commonplace today for American women to dye their hair, it was once considered vain and shrouded in secrecy. In early 20th century America, a stigma was attached to hair coloring, and it was not until a Clairol advertising campaign in the 1950s that the stigma dissipated.³ Even still, only about 7% of Americans colored their hair. Women felt it necessary to hide the fact that they dyed their hair. However, partially because of marketing efforts, erosion of the stigma of dyeing one's hair, whether to cover gray or to "have more fun" as a blonde, has caused the percentage of Americans who dye their hair to steadily rise from 40% in the 1970s to 75% in 2004.³

Similarly, botulinum toxins have had a history of being veiled in secrecy and an indulgence for the rich or the vain. The myth that patients who receive botulinum toxin treatments are more vain still persists. We attempted to determine the "vanity" of patients by comparing the percentage of patients receiving botulinum toxin treatment who dye their hair to the percentage of American women who dye their hair. The assumption would be that more vain individuals would also be more likely to dye their hair than the national average. Hence, if 95% of patients who receive botulinum toxins were to also dye their hair in comparison to 75% of individuals in the general population who just dye their hair, patients receiving botulinum toxin treatment may be more vain. In addition, we sought to investigate if patients receiving botulinum toxin treatment were more apt to have a specific hair color, either natural or dyed.

MATERIALS AND METHODS

Women who were planning to undergo onabotulinum-toxinA or abobotulinumtoxinA injections for cosmetic treatment were recruited from the office of a facial plastic surgeon. Patients were asked if they would be willing to participate in a onetime survey regarding their hair color and hair-coloring habits.

Patients were given a 4-question survey to complete prior to their botulinum toxin injection. Survey questions included the following: (1) How would you describe your hair color? (2) Is this your natural color? (3) If not, what is your natural color? (4) How long has your hair been the current color? Patients were asked to choose from 16 hair colors, of which there were 4 specific colors for each broader category of blonde, brunette, red, and grey. Patient surveys were entered into a spreadsheet.

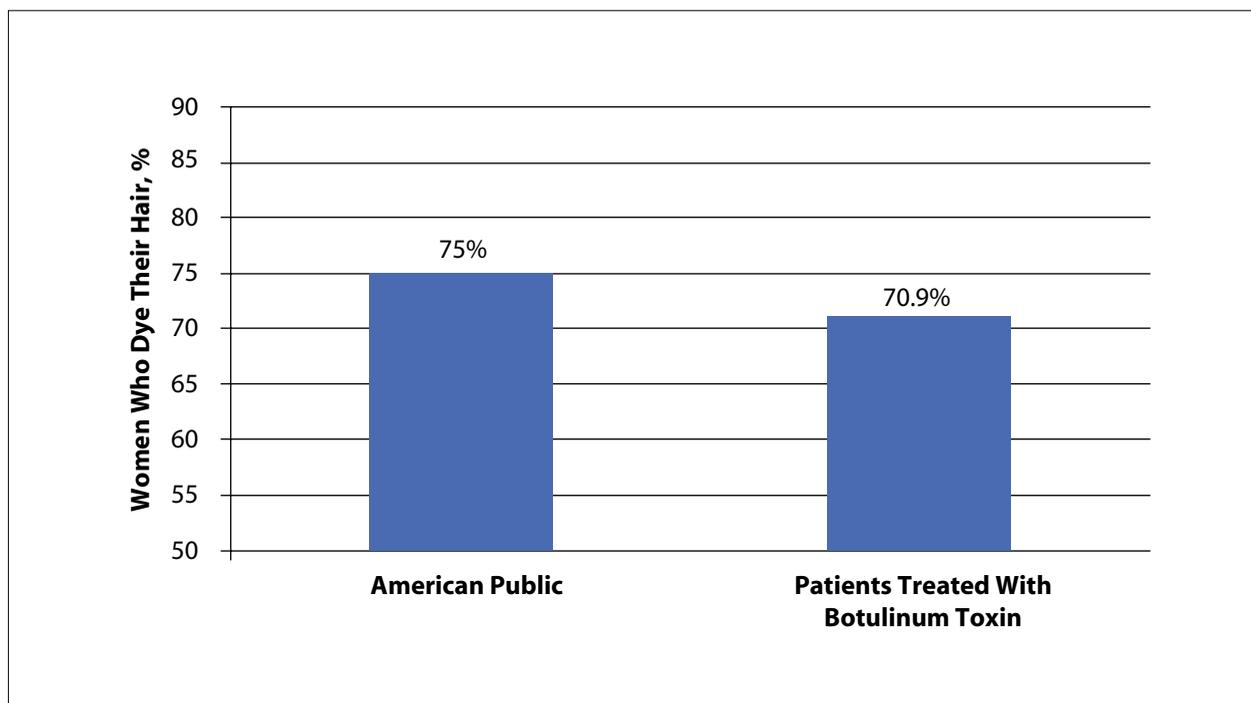
RESULTS

One hundred thirty-four women completed the 4-question survey (Table). Of these women, 70.9% of women currently dye their hair (Figure) and 29.1% do not. The most common current hair color was brunette (50.00%), followed by blonde (41.04%). The most common natural hair color also was brunette (61.94%). Patients were most likely to dye their hair blonde (55.79%). Patients who dyed their hair maintained this color for a mean (SD) of 13.88 (11.14) years, with 45.26% maintaining the color for more than 10 years.

COMMENT

Although hair coloring is very popular today, it was once a clandestine practice of the wealthy or those considered vain. As of 2003, home hair coloring was a \$1.54 billion market,⁴ and according to a report published in 2008, hair coloring made up to 80% of the \$60 billion

Hair Color Survey Statistics (N=134)				
Category	Blonde	Brunette	Red	Grey
Current hair color	41.04%	50.00%	5.22%	3.73%
Dyed hair color	55.79%	36.84%	6.32%	1.05%
Natural hair color	20.15%	61.94%	1.49%	16.42%



Percentage of women who dye their hair.

US salon market.⁵ The expansion of the hair-coloring market is due largely to the marketing efforts of Clairol in the 1950s, a time in which relatively few Americans colored or admitted to coloring their hair. With advertisements featuring respectable women and slogans such as “Is it true blondes have more fun?” and “If I have only one life, let me live it as a blonde,” hair coloring became more acceptable and less about covering grey hair. America is now a society in which hair coloring is almost universally accepted, embraced, and practiced by almost 75% of women.³ Women were once afraid to admit that they colored their hair; now female celebrities are embracing the practice and serving as spokeswomen for home hair-coloring products.

The use of botulinum toxins appears to be following a similar evolution as that observed with hair coloring. The appealing face-shaping benefits of raising the brow, nose, and oral commissures are replacing the image of the frozen botulinum toxin face. Many Hollywood celebrities are now admitting to receiving botulinum toxin treatment and treatment popularity is increasing.

Not only do both hair coloring and botulinum toxin treatment enhance beauty, but both have been implicated to influence social interactions through the projection of a more youthful or positive appearance. A more youthful

attractive appearance has been associated with an economic advantage in the workplace.⁶⁻⁸ Blonde women have been shown to receive higher wages than those of other women, equivalent to an extra year of school.⁹ Moreover, hair color and cosmetic use have been linked to biases in perceptions of a woman's ability.¹⁰ Similarly, botulinum toxin type A treatments have been shown to improve the first impression that one projects.¹¹ Perhaps a social advantage exists to both receiving botulinum toxin treatment and coloring hair.

However, despite the growing popularity and advantages of botulinum toxin treatment, a misconception exists that individuals who receive treatment with botulinum toxins are overly vain. Although our survey was not a scientific study into patient psychological makeup, our results suggest that our patients receiving botulinum toxin treatment are no more likely to color their hair than the American public at large. One could loosely infer that these patients are no more vain or image conscious than the average American woman. A more scientific evaluation of the psychosocial benefits and acceptance of botulinum toxin is warranted.

Perhaps the misconception to label patients receiving botulinum toxin treatment as overly vain is just that, a misconception. Our findings suggest that our patients

are similar to the national average with regard to hair coloring and, one could infer, are no more image conscious. Just as hair coloring shed its stigma of being for the elite or vain, so too are botulinum toxins shedding their stereotypes.

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