Minimally Invasive Facial Rejuvenation: Maximizing Practice Revenue With Dermal Fillers

Susan R. Baskin, MD

The use of dermal fillers, especially semipermanent collagen stimulators, for minimally invasive facial rejuvenation has grown exponentially. In addition, combination approaches to cosmetic treatment are emerging. This study evaluated practice revenue from patients treated with poly-L-lactic acid (PLLA) (Sculptra Aesthetic, Medicis, a division of Valeant Pharmaceuticals) or calcium hydroxylapatite (CaHA) (Radiesse, Merz Aesthetics, Inc). The additional revenue generated from conversion to other services and procedures also was analyzed. The results of this study indicate that treatment with PLLA generates higher revenue per patient and a broader scope of additional services and procedures being requested, resulting in 70% more total revenue per patient. Based on these data, profitability is likely to be greater with PLLA because the majority of conversion services can be administered by nursing staff and require minimal consultation time, unlike with CaHA. Because of differences in treatment practices, the additional revenue and profitability with PLLA observed in this study could be an underestimate for some cosmetic practices.

Skin aging is a complex multifactorial process. Many patients require more than 1 type of aesthetic treatment to address multiple etiologies and maximize treatment outcomes.[1-3] Advances in aesthetic medicine have allowed noninvasive modalities such as dermal fillers, botulinum toxin type A (BTX-A), and lasers to replace surgical procedures as first-line cosmetic rejuvenation techniques. In the last 30 years, dermal fillers have become more predominant in dermatology and cosmetic surgery[4] with an exponential growth in their use in minimally invasive facial rejuvenation procedures.[5,6] In 2010, physicians in the United States performed more than 1.3 million procedures with injectable hyaluronic acid alone, with only BTX-A injections being more frequently used for nonsurgical cosmetic rejuvenation.[7] The global market for dermal fillers is estimated to be just under $850 million per year.[8] As a result, the practice of noninvasive cosmetic procedures has become an important business model for physicians;

From Baskin Aesthetic Medicine, Portland, Maine.
Dr. Baskin is a physician trainer for Medicis, a division of Valeant Pharmaceuticals.
Correspondence: Susan R. Baskin, MD, Baskin Aesthetic Medicine, 195 Fore River Pkwy, Ste 150, Portland, ME 04102 (sb@drsusanbaskin.com).

however, there are few data on how to maximize practice revenues accordingly.

Patients continue to seek products that provide longer-lasting effects and minimize the need for repeat treatments.[8] Convenience drives the use of more durable (ie, semipermanent, permanent) soft-tissue fillers and implants; however, because of continued facial aging following cosmetic procedures and the potential for long-term complications, semipermanent effects may be preferable to allow for periodic augmentation of the face to address ongoing morphologic changes.[9] As a result, the use of semipermanent fillers—more specifically the biologically active collagen stimulators poly-L-lactic acid (PLLA) and calcium hydroxylapatite (CaHA)—has grown in popularity. The main differences between these longer-acting collagen stimulators are the onset and duration of their effects. Patients seeking immediate effects (lasting approximately 12 months[10]) may be better suited for treatment with CaHA, whereas patients interested in attaining gradual, natural-looking results that could last for 2 to 4 years[11,12] may be more satisfied with PLLA injections.[13]

Combination approaches to cosmetic treatment also are emerging. Soft-tissue fillers may be more effective when used as part of a comprehensive strategy to address the underlying morphologic causes that produce signs of facial aging.[14] When combined with other treatments (eg, BTX-A, radiofrequency tightening, resurfacing techniques), longer-lasting correction for contour and volume deficits may be possible compared to monotherapy. For example, the ability of PLLA to volumize and sculpt the face make it an ideal complement to other types of facial rejuvenation treatments, as it offers reliable and predictable results that are generally well tolerated. Poly-L-lactic acid can be used to treat the lower face and midface, while BTX-A can be applied to the signs of aging in the upper face, such as frown lines and fine lines around the eyes. In some patients, laser resurfacing could be used to remove the superficial layers of the dermis with subsequent PLLA treatment to sculpt and provide volume. Radiofrequency treatment also could be used to tighten the tissues in the neck and face to complement the effects of PLLA.[15]

This study evaluated 2 important aspects over 2 years that are related to the use of collagen stimulators PLLA and CaHA for facial rejuvenation: practice profitability and conversion rates for other services and procedures.

METHODS

The study followed 391 patients over 23 months (January 7, 2010, to December 7, 2011) to analyze and compare practice revenues generated from treatment with PLLA (Sculptra Aesthetic, Medicis, a division of Valeant Pharmaceuticals) or CaHA (Radiesse, Merz Aesthetics, Inc). This extended period was chosen to include patients who would have come back for a second round of CaHA treatment, providing a more accurate representation of comparable revenues for equivalent long-term patient care. Any additional revenue from these additional courses of CaHA was included in the analysis, with some patients having received more than 3 syringes of CaHA. Overall, the number of patients treated with PLLA and CaHA represented approximately 75% of the patients treated with fillers during this time frame; thus these findings were important in evaluating the overall profitability of the cosmetic practice.

To assess the potential to convert to other cosmetic services and procedures (eg, Thermage [Solta Medical], Laser Genesis series [Cutera, Inc], intense pulsed light, Pearl laser [Cutera, Inc], yttrium-scandium-gallium-garnet fractional laser resurfacing [Pearl Fractional, Cutera, Inc], laser hair removal), 34 patients who received either 3 syringes of CaHA in 1 session (17 patients) or a PLLA treatment course of 3 injections (17 patients) from October 2010 to October 2011 were randomly selected for a more detailed study. Revenue was calculated from additional procedures that patients in the 2 groups received. Although onabotulinumtoxinA (Botox Cosmetic, Allergan, Inc) was included in the overall revenue calculations, it was separated from the other procedures in this analysis because it required physician intervention, while the other adjunctive procedures were administered by nursing staff.

RESULTS

A total of 276 patients were treated with CaHA and 115 were treated with PLLA. The total revenue generated and average revenue per patient are shown in Table 1. The total practice revenue generated from all 391 patients was $601,764. On average, the revenue per patient with PLLA compared with CaHA was 52% higher ($694.68).

Conversion to other services and procedures and the additional practice revenue generated among the smaller cosmetically matched sample of 34 patients are shown in Table 2. All of the patients from the CaHA group who converted to other procedures chose onabotulinumtoxinA (n=10; 59%). In the PLLA group, a similar number of patients converted to other procedures (n=11; 65%), but only half of them (6/11) chose onabotulinumtoxinA, while the others opted for more lucrative and profitable services and procedures. The average revenue per patient among those undergoing other procedures was 70% higher ($1650) with PLLA compared with CaHA.

COMMENT

Data from this analysis indicate that a substantial increase in practice revenue is possible from offering PLLA

TABLE 1

Total Revenue and Average Revenue Per Patient From CaHA and PLLA Treatments (January 2010–December 2011)

Filler	No. of Patients Treated	Total Revenue	Average Revenue Per Patient
CaHA[a]	276	$368,383	$1334.72
PLLA[b]	115	$233,381	$2029.40

Abbreviations: CaHA, calcium hydroxylapatite; PLLA, poly-L-lactic acid.
[a]Radiesse (Merz Aesthetics, Inc).
[b]Sculptra Aesthetic (Medicis, a division of Valeant Pharmaceuticals).

TABLE 2

Revenue Per Patient From Additional Services/Procedures[a]

Filler	No. of Patients Treated With OnabotulinumtoxinA,[b] n (%)	Total No. of Patients Converting to Additional Services/ Procedures, n (%)	Average Revenue Per Patient Including Additional Services/ Procedures
CaHA[c]	10 (59)	10 (59)[d]	$2350
PLLA[e]	6 (35)	11(65)	$4000

Abbreviations: CaHA, calcium hydroxylapatite; PLLA, poly-L-lactic acid.
[a]Matched sample of 17 patients per group.
[b]Botox Cosmetic (Allergan, Inc).
[c]Radiesse (Merz Aesthetics, Inc).
[d]All 10 patients treated with CaHA only chose onabotulinumtoxinA as an additional service/procedure.
[e]Sculptra Aesthetic (Medicis, a division of Valeant Pharmaceuticals).

treatments compared with CaHA. In addition to enhancing revenue potential, the greatest benefit of PLLA is the number of additional services and procedures booked by patients who are already being treated, which contributes to considerable gains in overall revenue (up to 70% more revenue per patient). It also poses lower practice management costs, both in terms of consultation time and staffing, as the initial lengthier consultation has already been carried out and additional services with the exception of onabotulinumtoxinA can be administered by nursing staff.

The importance of generating income from other services and procedures is well recognized in aesthetic medicine. In my experience, patients who undergo treatment with PLLA and CaHA are more committed to facial rejuvenation procedures and more likely to buy into treatment plans that provide additional benefits, spend more time with the practice, and are happy with the treatment results. More than 50% of patients undergoing treatment with either PLLA (n=11) or CaHA (n=10) booked additional treatments during the study period; however, there were differences in scope and profitability. More frequent contact with the practice helps patients develop greater confidence in the services offered, thereby encouraging more discussion of additional treatment options. Although both patient groups in the matched sample population in

this study received 3 syringes of CaHA or PLLA, the PLLA group required additional visits to the practice, which increased contact with patients, a major differential in determining the scope of the additional treatments that were carried out.

These data may underestimate the additional revenue from the use of PLLA in our practice. Poly-L-lactic acid procedures are designed as a course of 3 treatments, whereas CaHA injections usually are administered every 10 to 12 months. The need to return more frequently and the favorable cosmetic results achieved with PLLA procedures provide more opportunities for patients to seek additional cosmetic services. In my experience, PLLA patients are more committed to the practice in general and are more open to undergoing these additional services. Although it is possible to conclude that dissatisfaction may be a reason for PLLA patients to convert to other procedures, given the care taken to perform comparable aesthetic outcomes in our 2 matched groups, it is my belief that conversion to other procedures was from patients who were highly satisfied with PLLA and committed to achieving their ideal cosmetic results.

CONCLUSION

This study highlights opportunities to maximize practice revenue by offering PLLA. Further evaluation of this patient population over time including patient satisfaction and cosmetic and financial implications to the practice will be of interest.

Acknowledgment—The author thanks Brian Bulley, MSc, of Inergy Limited, Lindfield, West Sussex, England, for medical writing support. Medicis, a division of Valeant Pharmaceuticals, funded Inergy's activities pertaining to this manuscript.

REFERENCES

1. Donath AS, Glasgold RA, Glasgold MJ. Volume loss versus gravity: new concepts in facial aging. *Curr Opin Otolaryngol Head Neck Surg.* 2007;15:238-243.
2. Friedman O. Changes associated with the aging face. *Facial Plast Surg Clin North Am.* 2005;13:371-380.
3. Bosniak S, Cantisano-Zilkha M, Purewal BK, et al. Combination therapies in oculofacial rejuvenation. *Orbit.* 2006;25:319-326.
4. Hu JC, Rubin A, Greco J, et al. Pearls on fillers and combination cosmetic therapy. *Cosmet Dermatol.* 2012;25:168-175.
5. Beasley KL, Weiss MA, Weiss RA. Hyaluronic acid fillers: a comprehensive review [published online ahead of print May 4, 2009]. *Facial Plast Surg.* 2009;25:86-94.
6. Fitzgerald R, Graivier MH, Kane M, et al. Surgical versus nonsurgical rejuvenation. *Aesthet Surg J.* 2010;30:28S-30S.
7. The American Society for Aesthetic Plastic Surgery. Cosmetic surgery national databank statistics: 2010. http://www.surgery.org/sites/default/files/Stats2010_1.pdf. Accessed June 13, 2012.
8. Breithaupt AD, Custis T, Beddingfield F. Next-generation dermal fillers and volumizers. *Cosmet Dermatol.* 2012;25:184-191.
9. Burgess CM. Principles of soft tissue augmentation for the aging face. *Clin Interv Aging.* 2006;1:349-355.
10. Beer K, Yohn M, Cohen JL. Evaluation of injectable CaHA for the treatment of mid-face volume loss. *J Drugs Dermatol.* 2008;7:359-366.
11. Beer K. Optimizing patient outcomes with collagenic stimulators. *J Drugs Dermatol.* 2007;6(suppl 1):S9-S12.
12. Mandy SH. Satisfying patient expectations with soft-tissue augmentation. *Dermatol Online J.* 2009;15:1.
13. Funt DK. Restoring harmony and beauty. *Advance for Healthy Aging.* 2006;10:17-20.
14. Burgess C, Lowe N. NewFill for skin augmentation: a new filler or a failure. *Dermatol Surg.* 2006;32:1530-1532.
15. Lowe NJ. Dispelling the myth: appropriate use of poly-L-lactic acid and clinical considerations. *J Eur Acad Dermatol Venereol.* 2006;20(suppl 1):2-6.