

Surgical or Nonsurgical Facial Rejuvenation: The Patients' Choice

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Background: Patients seeking a pan-facial rejuvenation may not receive appropriate medical advice on surgical versus nonsurgical treatments, resulting in those who are best-suited for surgery receiving nonsurgical options, and vice versa. Patients who requested total-face, nonsurgical revitalization were surveyed to understand the factors influencing this decision-making.

Methods: Patients consulting for total facial rejuvenation were surveyed on their reasons for seeking nonsurgical versus surgical interventions by an investigator with 30 years of plastic surgery experience, practicing in a nonsurgical clinic alongside a dermatologist and aesthetic physician.

Results: Of the 92 patients surveyed, 78% completed the survey, 47% of whom had considered facelift surgery, and 14% of whom proceeded to inquiries or consultations with a plastic surgeon about facelift surgery. All respondents were women, and age was not an exclusion factor. Forty-four percent would still consider facelifts in later life. Among the most common reasons for choosing nonsurgical approaches were a desire for natural and subtle results, cost, having flexibility in treatment choice, concerns about surgical and anesthesia risks, downtime, the ability to distribute treatments over time, and scarring.

Conclusions: Many patients book nonsurgical treatments without prior professional advice, and consider these as a temporary solution, but may desire surgery later in life. Before conducting nonsurgical treatments, doctors should identify this group and avoid interventions that may interfere with optimal surgical outcomes later. Also, some patients desire surgical outcomes when surgery is not a feasible option, and thus seek nonsurgical alternatives. For this group, realistic goals must be set before treatment to avoid disappointment. (*Plast Reconstr Surg Glob Open* 2023; 11:e5318; doi: 10.1097/GOX.0000000000005318; Published online 4 October 2023.)

INTRODUCTION

Before seeing a medical practitioner, patients seeking a pan-facial rejuvenation will often have already decided on whether they wish to have a surgical or nonsurgical treatment. Unfortunately, this can result in them booking an appointment for the relevant procedure or consultation with a proceduralist to perform the desired service, even if it is neither appropriate nor optimal. As a result, patients who are best suited to surgery may not seek that option, and conversely, those who are ideal for nonsurgical options may opt for surgery instead. This Special Topic presents an informal survey conducted among a selection of patients who sought total-face,

nonsurgical revitalization, with the goal of determining the factors that influence the choice of surgical or nonsurgical options.

The anatomy of skin and facial aging has been well described.^{1,2} Mature patients with aging skulls display resorbed maxilla, mandible, and frontal bones, but minimal zygomatic bone resorption.² In addition, diminished bony support in the central face (eg, forehead, nasion, piriform fossa, and mandible), results in movement of soft tissue, loosening of ligaments, and loss of facial midline projection. The secondary soft tissue changes produce unwanted expressions of tiredness (hollowing and dark under-eye circles), constant frowning (increased resting tone in the glabella complex musculature), an unhappy expression (downturned mouth corners due to an increased resting tone in the depressor anguli oris and platysma muscles), and meanness (a change from lip eversion in youth to inversion during aging causing pinched lips).^{2,3}

Facial revitalization aims to create a face that reflects health, vitality, and contentment. This can be achieved

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DOI: 10.1097/GOX.0000000000005318

Disclosure statements are at the end of this article, following the correspondence information.

through both nonsurgical and surgical means. Surgery can anatomically correct the secondary changes of aging and leave the patient looking like a younger, better version of themselves.^{4,5} Nonsurgical rejuvenation can only approximate these endpoints. However, even with a surgical facelift outcome, adjunctive, nonsurgical measures may be required to maintain the initial surgical results.⁵ Factors that influence the patient’s choice are downtime, costs, the risks and complications of surgical procedures, and a desire for a younger appearance, or a desire to improve the existing appearance in a subtle and age-appropriate manner.^{6,7}

METHODS

Patients presenting to our nonsurgical clinic in 2019 and 2020 for total facial rejuvenation consultations were identified and asked to participate in a survey. Not all patients proceeded with treatment in our clinic but were still invited to participate. The investigator (N.C.) designed an anonymous, unvalidated electronic survey questionnaire (SurveyMonkey Inc. San Mateo, Calif.; www.surveymonkey.com) consisting of four questions and open comments, which was distributed to patients by phone messaging and email in August 2020.

RESULTS

Ninety-two patients presenting to a nonsurgical practice seeking nonsurgical rejuvenation were surveyed. All patients were women, with a mean of 53 years (range: 41–74 years), and age was not an exclusion factor. The purpose of this study was to provide insights into these patients presenting to a nonsurgical practice rather than a plastic surgeon for full-face rejuvenation. Seventy-two patients (78%) completed the survey, 47% of whom had considered facelift surgery (Fig. 1) and 14% of whom proceeded to inquiries or consultations with a plastic surgeon about facelift surgery (Fig. 2). Most interestingly, 44% would still consider a facelift in later life (Fig. 3). Plastic surgeon colleagues have reported to the author the existence of unexpected, nonsurgical, face-lifting interventions, such as fillers and threads (Fig. 5), in their patients at the time of subsequent facelift surgery.

The most common reason for choosing the nonsurgical approach was a desire for natural and subtle results (Fig. 4). Cost was the second most common factor,

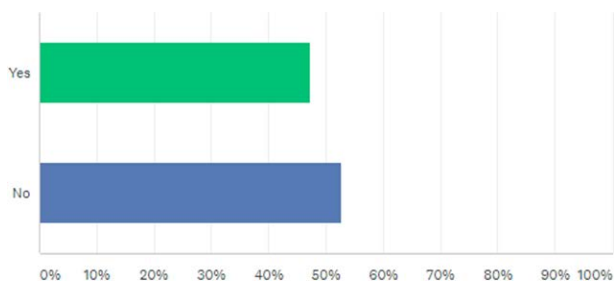


Fig. 1. Proportion of respondents who have considered a facelift (n = 72).

Takeaways

Question: What factors are important to patients when deciding between surgical and non-surgical facial rejuvenation treatments?

Findings: Without first seeking professional advice, many patients predetermine, and proceed directly to, surgical or non-surgical treatment. Half of patients consider non-surgical treatments a temporary solution and would still consider surgery later in life.

Meaning: It is important to discuss the possibility of future surgery with patients before embarking on non-surgical treatments that may complicate surgery, to guide patients appropriately, and set realistic goals before treatment.

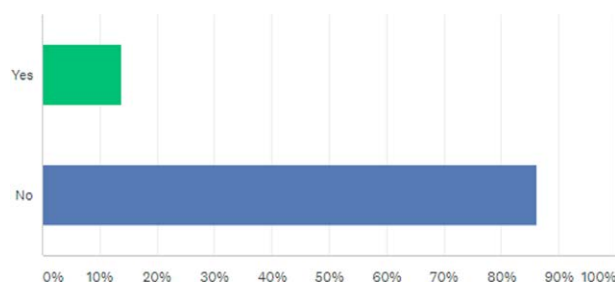


Fig. 2. Proportion of patients who have enquired about facelifts. Enquiries were made by calling or having a consultation with a plastic surgeon or his/her staff (n = 72).

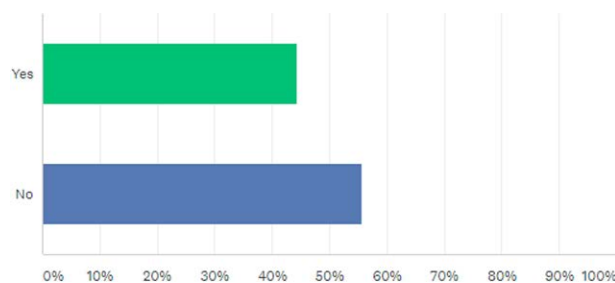


Fig. 3. Proportion of patients who would consider a facelift later in life (n = 72).

followed by having flexibility in treatment choice; concerns about the risks associated with surgery and anesthesia; time away from work and family; the ability to spread treatments out over time; and lastly, scarring concerns (Fig. 4). In their open comments, patients cited “suboptimal results of facelift, unnatural results,” “not sure if I will look like me” and “scared of a bad outcome,” alongside cost concerns. They also cited pain avoidance and the desire to undergo multiple smaller treatments rather than one surgical procedure.

DISCUSSION

Natural, modest-appearing, long-term improvements in patients’ appearance can be achieved with

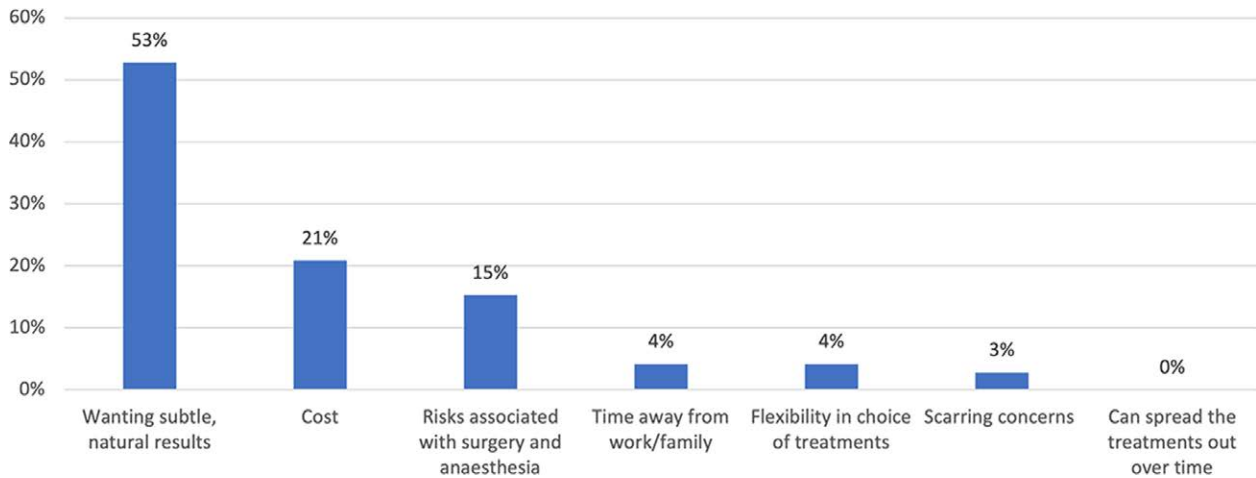


Fig. 4. Mean priority of factors in decision-making between nonsurgical vs surgical treatments on a scale of 1 to 7 (n = 72). 1: most important factor, 7: least important factor. Nonsurgical treatments given as examples included injectables, micro-focused ultrasound, and skin quality treatments.

well-performed surgery. Conversely, nonsurgical interventions can result in unnatural, overdone appearances that may be complicated by scarring. Plastic surgeons' observations of preexisting fillers and threads during subsequent facelift surgery may occur without the surgeon even being aware of them before surgery. Such situations can potentially cause difficulties during surgical dissections and identification of structures, thus increasing the risk of complications.

Nevertheless, nonsurgical rejuvenation is increasing in popularity, whereas the demand for facelifts is declining.^{8,9} Several studies have evaluated the demographics and motivations of patients seeking nonsurgical procedures, but not the attitudes of these patients towards surgery or their reasons for seeking one modality over another before professional guidance.^{10,11} A review of our patients considering total-face, nonsurgical rejuvenation revealed two groups of patients: those considering nonsurgical facial rejuvenation but who had not considered a facelift (52%), and those who had, but had opted against surgery, now or later in life (56%). The latter group included patients who frequently stated that they did not want to look younger, were happy appearing their age, wanted a "better version of themselves," and wanted to appear less tired.

Facial expression is a major contributor to nonverbal communication. Facial aging produces changes that reflect the emotions of tiredness, sadness and grumpiness, and of appearing drawn and sallow. Surgery can effectively make a face look younger by addressing aging-related soft tissue laxity and restoring volume. Consequently, surgery removes these unintended nonverbal communications of an unhappy personality and even poor health. Nonsurgical interventions can also address these unintended communications without making the patient look younger per se, as only modest improvements in soft tissue laxity are achieved. Some patients simply want to improve their self-confidence by physically changing their subliminal, emotional communications to that of a healthier and happier persona.

The investigator's treatment philosophy is that interventional procedures in this cohort should not be visually obvious and should not aim to produce a younger-looking face per se. Rather, treatments should aim to be age-appropriate and make patients look better and feel better about themselves. Indeed, patients cite subtlety and the ability to retain their individuality and general appearance as reasons for choosing nonsurgical over surgical interventions. They are attracted to the small changes and improvements made over time and the ability to maintain some control by being able to provide input on their chosen, individual procedures and treatments. They appreciate the ability to change the course of their treatment to fit around life events. Nonsurgical interventions and techniques are fundamentally well-suited to the aesthetic goals and requests of patients who do not want the more youthful outcomes of surgery, but whose primary desired outcome is a subtle change in appearance that improves their subliminal emotional nonverbal communication and elicits an appearance of improved health and vitality. Such treatments are likely to produce high satisfaction rates in these patients.

After consultation, an individualized multimodal treatment plan is devised, agreed upon, and implemented. This plan typically includes some or all of the following modalities: micro-focused ultrasound with visualization (MFU-V; Ultherapy, Merz North America, Inc., Raleigh, N.C.) to tighten facial soft tissues; neurotoxin with incobotulinumtoxinA (incoA; Xeomin, Merz North America, Inc., Raleigh, N.C.) to rebalance the facial musculature; fillers [hyaluronic (HA) and calcium hydroxylapatite (CaHA)] to restore volume; combination CaHA with MFU-V biostimulation; and at-home and in-clinic skin care. Treatments are primarily designed to improve areas that convey unwanted facial expressions (eg, tiredness from infraorbital hollowing) and improve skin quality to reflect better health and vitality. Tightening with MFU-V improves skin quality and reduces the amount of filler

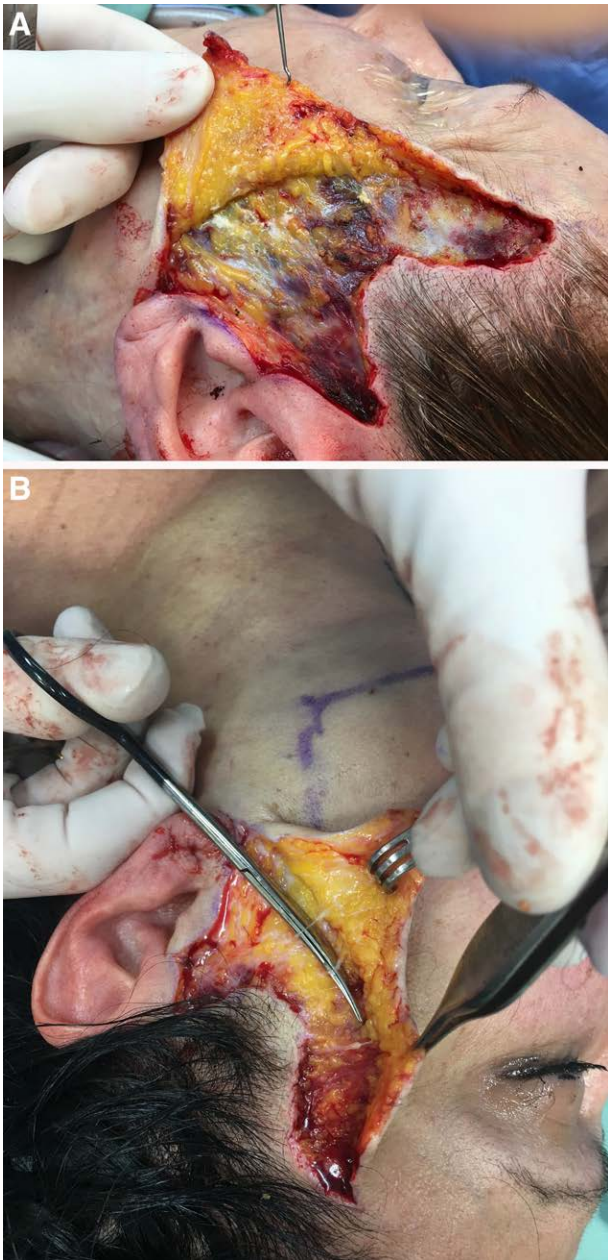


Fig. 5. Residual CaHA is observed during surgical procedure. A surgery performed 2.5 years after the initial filler injection (A) and permanent threads placed a few years prior but now encountered during surgery (B). Courtesy of Dr. Peter Callan, FRACS.

required to address volume loss by tightening deeper tissue support systems.

An unexpectedly high proportion—nearly half of patients (47%)—had considered a facelift, and 44% may consider it in later life. This indicates that patients may view nonsurgical interventions as a delaying tactic to surgery, rather than an entirely different treatment strategy per se. These patients would likely want to address their laxity and secondary subliminal, emotional, nonverbal communication, to achieve a more youthful appearance. Cost was identified as the next most common driver, suggesting

that some patients may undergo surgery once funding becomes available. Only 14% of patients had sought professional advice about surgery before proceeding with nonsurgical interventions. Patients will need counseling on the continuous, ongoing cost considerations required to maintain the outcomes of both surgical and nonsurgical treatments, to maintain skin quality, muscle balance and any consequent volume loss.

In one study, 32% of facelift patients younger than 50 years of age had prior nonsurgical procedures before surgery. Both physicians and patients need to be aware that nonsurgical procedures in this group of patients requires critical consideration of several relevant treatment factors. For example, hyaluronic acid fillers are usually easily reversed with hyaluronidase.¹² However, the author has observed that overfilled faces (produced in a misguided attempt to fill out and support lax tissues) can lead to stretching of the ligamentous support, which becomes evident after reversal of the filler. Biostimulation is designed to induce collagenesis,¹³ particularly with products such as CaHA and poly-L-lactic acid, which may involve widespread placement in different layers and may hinder future dissection of tissue planes. Devices designed to tighten tissues, like high-intensity focused ultrasound^{14,15} and threads, potentially complicate surgical dissection through increased collagenesis.¹⁶ Although surgery can usually be performed with minimal morbidity,^{17,18} residual material such as threads can also complicate surgery (Fig. 5). Any factor that increases the technical difficulty of surgical procedures also increases the risk of complications.

Given the limitations of what is achievable, another real risk to nonsurgical approaches in this group of patients is disappointment with the results after considerable expenditure, without achieving their desired outcomes of a significantly more youthful appearance. The patients may have different goals to the treating physician, may always consider a nonsurgical pathway to be inferior, and are unlikely to be completely satisfied with their results. Over time, they may not see their results as value for money.

To avoid this situation, it is essential to have a realistic and honest discussion to identify potential surgical candidates and encourage such patients to explore this option before commencing nonsurgical treatment. The anatomy and physiology of aging should be explained and related specifically to the patient's own face. A treatment plan is individualized to each patient's health, anatomical variations, budget, and availability. An example of this is shown in Figure 6, where patients who could have undergone surgery with excellent outcomes of rejuvenation, chose minimally-invasive procedures instead. Their outcomes were more subtle, age-appropriate, and targeted to achieving a healthy appearance, as their treatment goal was not a younger look. Appropriate interventions need to be planned for patients who are identified as delaying surgery and likely to pursue a surgical option in the future. It should also be explained that surgical patients can maintain results or gain further improvements using nonsurgical techniques,^{19–22} such as high-intensity focused ultrasound, dermal fillers, and botulinum toxins. Some patients will change their minds for various reasons and

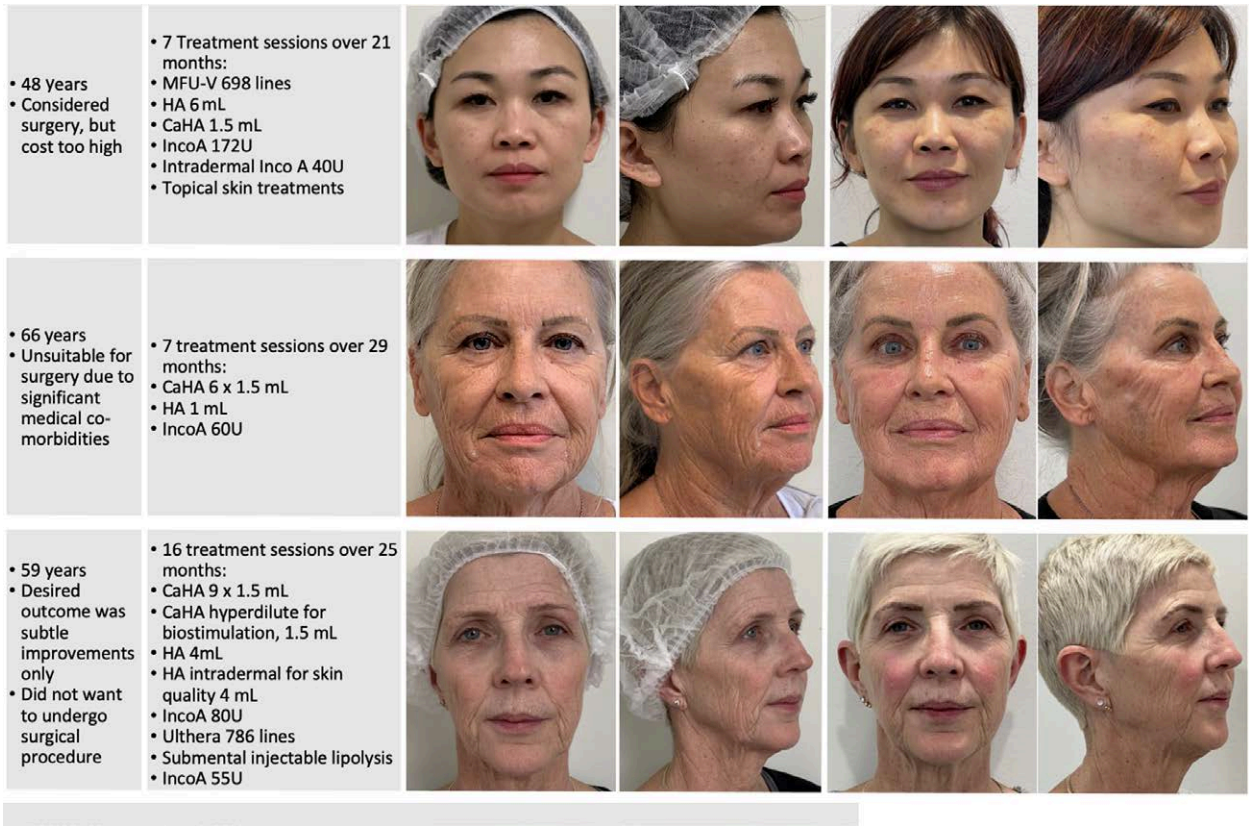


Fig. 6. Minimally-invasive procedures used for patients considered to be surgical candidates. These patients who, after adequate consultation, have opted for conservative improvements in their appearance, using nonsurgical strategies to achieve their desired outcomes. IncoA, IncobotulinumtoxinA.

transition to surgical options no matter how well-screened and counseled they were before initiating nonsurgical treatments. It is not a simple “either or” option.

To facilitate this, a decision tree on surgical or nonsurgical interventions (Fig. 7) can help physicians decide on the appropriate intervention based on their patient’s requests and goals. Patients must understand and accept what can and cannot be achieved with nonsurgical interventions, and that aggressive nonsurgical procedures have the potential to disrupt surgical planes, cause tissue trauma, require longer times for tissue remodeling and wound healing, and increase the difficulty and risks of subsequent surgery.^{17,23} Biostimulation induces collagenesis to varying extents, depending on the product and/or energy-based devices used and each patient’s capacity for neocollagenesis. The author’s practice is to advise patients to delay surgical procedures for at least 3 years after nonsurgical lifting or biostimulant procedures. More insight and clarity is needed on the satisfaction rates after nonsurgical rejuvenation between these two groups of patients, and further study is required.

This study was limited by issues with patient photography due to a change in consultation rooms, leading to inpatient variability in lighting, positions, and animations. However, to avoid artificial photographic manipulation, no corrections or compensations for these issues were made. Nevertheless, this does not impact the goal of demonstrating the subtle improvements obtained by nonsurgical treatments.

CONCLUSIONS

We conducted a survey among selected patients who sought total-face, nonsurgical revitalization, to determine the factors influencing the choice of surgical or nonsurgical treatments. Many patients are predetermining surgical or nonsurgical treatment without professional advice, and proceed directly to booking an appointment. Often, this means that the alternatives are not discussed. We found that up to half of patients may consider nonsurgical treatments as a temporary solution and would still consider surgery later in life. The other half only wanted subtle changes to improve their subliminal emotional communication and attain the appearance of health and vitality, rather than a more youthful look. It is important to have an open discussion with patients about the possibility of future surgery before embarking on nonsurgical treatments that could lead to surgical difficulties. It behooves the surgeon and the physician to be knowledgeable of all current techniques and outcomes to help guide patients appropriately. Patients may accept a compromise in desired results if they are fully cognizant of the facts and acknowledge realistic outcomes. To avoid disappointing patients, it is worth identifying those who truly want surgery but are unable to pursue that, and those who seek nonsurgical options as a second choice. The author asks all patients considering nonsurgical rejuvenation treatments whether they

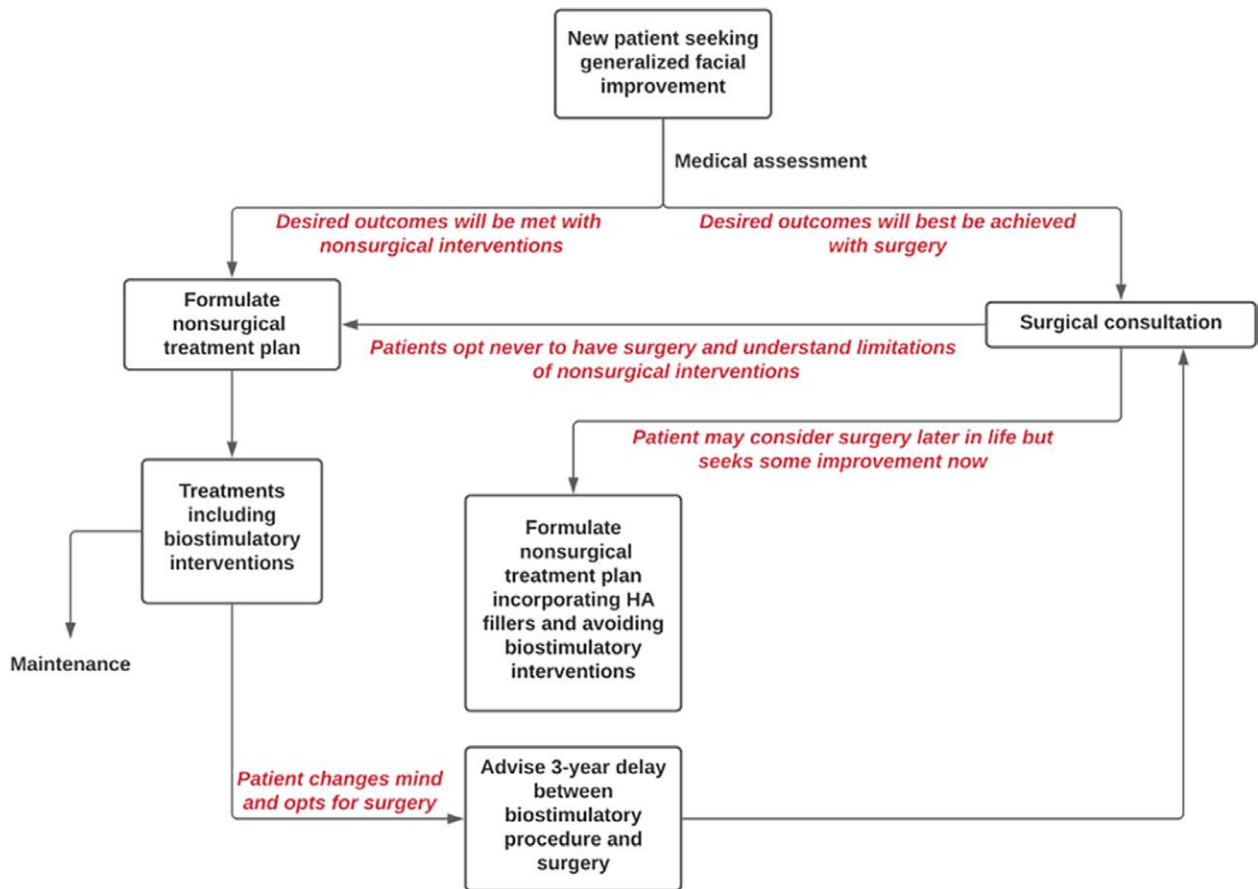


Fig. 7. Surgical or nonsurgical intervention decision tree. Suggested actions to help physicians decide on whether a surgical or nonsurgical procedure is appropriate for their patients, based on their aesthetic goals and treatment requests.

would ever consider surgery and if so, to have a surgical consultation before embarking on a nonsurgical journey. Thus, realistic goals can be set before treatment, and disappointment can be avoided.

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DISCLOSURES

The author has no financial interest to declare in relation to the content of this article. Funding for the preparation of this article was provided by Merz Asia Pacific Pte. Ltd to Dr. Shawna Tan, Medical Writers Asia.

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