Has the Pendulum Swung Too Far?

Trends in the Teaching of Endonasal Rhinoplasty

At one time, the endonasal approach to rhinoplasty was the one predominantly taught and performed. Generations of physicians were trained in transcortilaginous, intercartilaginous, and delivery approaches to rhinoplasty with only minor modifications from the teachings of our predecessors. In the late 1970s and early 1980s, the transcolumellar external rhinoplasty approach gained popularity. The openness of the procedure allowed a versatile approach to the nose with greater exposure of the nasal cartilages, which proved to be a superior method for complex revision work and a better teaching tool. The last decade has seen external rhinoplasty become the predominant method used in rhinoplasty. Additionally, as leaders in our field turned to the external approach, the training of facial plastic surgeons in this approach followed, and it appears that the endonasal approach is rarely taught today. It is likely that a generation of facial plastic surgeons may not be proportionally educated in the endonasal approach to rhinoplasty.

Modern cosmetic rhinoplasty and internal incision rhinoplasty are traditionally attributed to German physician Jacques Joseph. Joseph was aware that cosmetic surgery was centered on treating the psyche of the patient. Many of Joseph’s patients were not accepted into German society owing largely to their ethnicity, so by having physical features that were identifiers of one particular ethnic group altered, individuals could come to more closely resemble an average person in that country at the time. Positive patient satisfaction as the outcome is a concept that our predecessors recognized as the primary objective of cosmetic medicine.

Surgeons flocked to Berlin to learn from Joseph. While they absorbed his knowledge and sharpened their new skills, these early pioneering surgeons gained experience, became experts, and developed a modern procedure that would shape attitudes, careers, and, arguably, a generation.

Perhaps the most recognized teacher of rhinoplasty in the United States, at least for the otolaryngologist, was Samuel Fomon, an anatomist who traveled to Joseph’s clinic in the 1920s. Fomon, a dedicated and determined explorer, reportedly persuaded Joseph’s nurse, by offering to pay her $50, to come in after hours and draw sketches of Joseph’s coveted tools. Fomon was an incredibly talented teacher who was known to explain difficult concepts in an easy-to-understand manner. To share his acquired knowledge, he set up courses around the country; he is responsible for bestowing the gift of rhinoplasty skills upon well-known physicians such as Morey Parkes, Irving Goldman, Jack Anderson, Maurice Cottle, and others. Rhinoplasty became part of the curriculum taught to young doctors in multiple specialties and to residents-in-training across the country.

However, rhinoplasty was mostly based on theories of reduction and prediction. Precise cartilage excisional maneuvers were expected to result with predictability to a certain degree of rotation, narrowing, or projection. While surgeons were enthusiastic and full of theoretical knowledge, the intricate nuances of the operation perhaps were not being properly translated. Additionally, as endonasal rhinoplasty was generally the only method taught, eager-to-please physicians may have extended the criteria and attempted to achieve heroic results. Unfortunately, patients whose noses had a difficult degree of deformity, who would not be good candidates for a limited-access rhinoplasty by the standards of today, were often left with untoward outcomes. A new language began to take shape that was...
patients who request rhinoplasty are not interested in a completely different nose. Rather, minor adjustments may be all they desire. Patient involvement in the decision-making process is imperative. It is not uncommon, following intense listening to the desires of a prospective patient, to discover that a mild dorsal shave, slight volume reduction of the tip, and subtle hint of upward rotation is all that is desired for optimal patient satisfaction. If so, it may be easier and more appropriate to provide these results via an endonasal approach.

Also, at times, what the surgeon or casual observer recognizes as a good outcome is not consistent with the discernment of the patient. It is not uncommon for a patient with a 20° leftward curve in his or her nose to request nasal straightening. If, following a minimally morbid endonasal approach, the nose is straightened but still deviates 3° to the left, the patient is frequently happy with the results nonetheless. However, if an attempt is made to completely straighten the nose through a more invasive external approach that uses a total septal replacement and, following the procedure, the nose (which takes longer to heal) is much straighter but slightly overcorrected to the right by 2°, the patient is frequently unhappy with the results. However, when a patient is used to seeing his or her nose deviated to the left, a correction of 75%, even if the nose continues to curve leftward, can make a patient pleased with his or her appearance. However, if the nose starts to curve the other way, even if only slightly, the patient is typically unhappy, because the nose would then be deviating in a direction to which the patient is not accustomed.

Nevertheless, to this day, the external approach remains the primary form of rhinoplasty being taught in fellowships. We surveyed all graduates of American Academy of Facial Plastic and Reconstructive Surgery (AAFPRS)–approved fellowship programs over the last 10 years. A 4-item survey was approved and sent out by the AAFPRS to 356 recent graduates of their approved fellowship programs. The surveyed physicians were selected if they had graduated between 1997 and 2007; they were asked to return their response by e-mail or fax. Members were asked what year they finished their fellowship, what percentage of their rhinoplasties were done through an external approach vs through an endonasal approach, how this trend has changed since they finished their fellowship, and what percentage of rhinoplasties they observed during fellowship performed via an external approach and how many via an endonasal approach.

Our findings revealed that a majority of institutions are teaching primarily 1 approach, and this is what a generation of AAFPRS fellowship trainees are learning and practicing. One hundred thirty-three surveys were completed, which revealed that during fellowship training the majority of respondents (57.6%) observed external rhinoplasty more than 75% of the time, with 83.3% observing it more than 50% of the time.

Once in practice, 72% of the graduates performed external rhinoplasty 75% to 100% of the time and 15.9% performed it 50% to 75% of the time. Hence, the vast majority, 87.9%, performed external rhinoplasty as their primary approach.

So why, collectively, are fellowship programs training mostly in only 1 approach? It may be that fellowship training centers are frequently tertiary centers to which patients with more difficult nasal anatomy are referred and, hence, the endonasal approach is rarely indicated, or perhaps the exposed anatomy of such patients is more appropriate for teaching purposes. Undoubtedly, there are certain indications, such as a severely deviated middle vault and a distorted nasal tip, that require an external approach. However, for the graduates trained primarily in 1 approach, who perform mostly primary rhinoplasty, it is conceivable that too many noses are undergoing too much surgery. Perhaps there are many patients that could benefit from the decreased morbidity commonly associated with less-invasive surgery. Endonasal rhinoplasty, although not indicated for all noses, is probably underused for many qualified
Measuring Outcomes in Nasal Surgery

Realities and Possibilities

Many desire outcome measures in surgery, but few can agree on the measuring tools, and fewer yet desire to be measured. This conflict underlies the quandary of measuring outcomes in any surgical disease process, perhaps more so in the case of surgical procedures that address the form and function of the nose. Nasal procedures that address functional and/or aesthetic concerns—septoplasty, rhinoplasty, nasal valve surgery, turbinoplasty, and septonasalplasty—are oftentimes so intermingled in their purposes and proposed clinical outcomes that the success of the intervention can be difficult to quantify. Yet the health care and academic environments often demand clear and distinct measurements for comparisons, reimbursements, research purposes, and certifications.

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REFERENCES


