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P U B L I S H E R S

Concurrent Functional Endoscopic Sinus Surgery and Rhinoplasty

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Traditionally surgeons have avoided performing rhinoplasty in conjunction with sinus surgery for rhinosinusitis. With advances in rhinoplasty and endoscopic sinonasal surgery and its added benefits of precision, minimal trauma, and hemorrhage, the combined procedure is now feasible. The indications, management, and results are discussed in 40 patients who underwent the combined procedure. Patients were divided into three categories based on the location and severity of the sinus disease: mild, moderate, or severe. The majority of patients had mild or moderate sinus disease. The most common presenting symptoms were nasal obstruction and postnasal drip. All patients had a history of sinusitis recalcitrant to conservative medical management. Results demonstrate the combined treatment modality to be safe and effective in patients with mild to moderate sinus disease and in selected patients with severe sinus disease.

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Classically, plastic surgeons have avoided performing rhinoplasty in the presence of acute or chronic rhinosinusitis due to the potential for infection. For the otolaryngologist, concurrent rhinoplasty can produce increased periorbital swelling and ecchymosis, which may potentially obscure the parameters used to monitor for complications of the sinus procedure [1].

Over the past decade, the advent of endoscopic sinus surgery using the Messerklinger technique, which restores the natural drainage of the sinuses, has resulted in more effective and less radical sinonasal surgery [2]. Moreover, the increased utilization of computed tomography (CT) scanning in the management of sinusitis has led to more precise localization of sinus anomalies. These advances have made the simultaneous

procedure safe and efficacious in appropriately selected patients with sinusitis. The purpose of this report is to identify the indications and limitations of the simultaneous procedures.

Patients and Methods

Forty patients were treated by this combined modality and 30 (75%) were available for follow-up. An additional 6 patients, who were referred by the plastic surgeon (AM), with sinus symptoms were not deemed to be appropriate candidates by the sinus surgeon (DRE). Seven patients also referred to the otolaryngologist refused to consider the combined procedure and underwent sinus surgery and rhinoplasty separately. There were 23 women and 17 men with a mean age of 33 years (range, 16-51 years) who underwent the combined approach. All had chronic rhinosinusitis refractory to medical therapy and underwent the combined procedure by the same otolaryngologist and plastic surgeon. All patients were initially seen by the plastic surgeon for aesthetic concerns. Those patients with significant complaints of breathing problems or sinus disease were referred for otorhinolaryngological consultation. Plastic surgery consultation included a discussion with the patient about desired changes and expectations, and a preoperative photographic series.

The otorhinolaryngological workup consisted of a thorough history, complete head and neck examination, office fiberoptic or rigid nasal endoscopy, as well as fine-cut (4 mm) CT scanning of the paranasal sinuses (axial and coronal views). Prior to proceeding with the surgery, all patients had clearly defined anatomic abnormalities identified on CT scans. Common obstructive anomalies identified on the CT scan included simple deviation of the nasal septum, polyposis in the region of the ostiomeatal unit, enlargement of the middle and inferior turbinates, and nasal

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Open Discussion

Samieh S. Rizk, MD

Dr Mark S. Granick (Philadelphia, PA): Dr Rizk, many of the patients we see for rhinoplasty come in with a complaint of nasal obstruction. What is your recommendation as far as a workup for the average patient who comes in with septal deviation and a complaint of obstruction?

Dr Rizk: If it is just nasal obstruction, I would get preoperative rhinomanometric and allergy testing. I would also recommend otolaryngologic evaluation preoperatively. That way you are covered and can avoid blame for worsening obstruction.

Dr Henry M. Spinelli (New York City, NY): I have a question analogous to what Dr Granick just asked you. Why couldn't the plastic surgery audience do a reasonable workup as Dr Mark Constantian does?

Dr Rizk: They sure can, but if you suspect that they have symptoms of sinus disease or polyposis in addition to the nasal obstruction, then I would recommend that you obtain a baseline ENT evaluation and order a CT scan of the sinuses with axial and coronal views.

Dr Spinelli: What kind of edema do you have

postoperatively? It was my intuition that you might have more doing the endoscopic sinus surgery and then going on. These are all closed rhinoplasties?

Dr Rizk: Yes, closed rhinoplasties.

Dr Spinelli: What kind of postoperative edema do you have in comparison to those without endoscopic sinus procedures?

Dr Rizk: When you are working on the anterior ethmoid and maxillary sinuses, there usually is not that much edema, but when you get into the frontal or sphenoid sinuses, you can get more edema. That is one reason why I think diseases in those sinuses are less amenable to the combined procedure.

Dr Mark B. Constantian (Nashua, NH): I should just like to take minor issue with one point, or to clarify something. In my opinion patients should never breathe worse after rhinoplasty, regardless of the indication for it. There are two things we can do if we do traditional rhinoplasties, or even modern ones, that can create airway obstruction without prior airway obstruction. One is resection of the cartilaginous roof, which destabilizes the internal valve and takes away the anterior support for the upper lateral cartilage, so they fall medially, and the patient has a new airway obstruction. The other thing you can do is reduce the lateral crura so much that you destabilize the external valve. You avoid that by making those identifications of valvular incompetence as well as septal obstruction preoperatively. Then you must remember, as you are performing whatever maneuvers that you are going to do, that you have to create imbalances that exist preoperatively or ones that you create during your aesthetic maneuvers. For instance, you resect the dorsal roof, so you put in spreader grafts. You recognize an incompetent external valve and you correct it. Then your patients should breathe better postoperatively 100% of the time.