been yet described. The aim of this study was to evaluate the efficacy and safety profile of TXA in rhinoplasty.

METHODS/TECHNIQUE: All patients underwent rhinoplasty by a single surgeon using an intravenous bolus dose of 1-g TXA before skin incision. TXA was also added to local anesthesia (0.5-mg TXA in 5-ml saline 0.9% and 0.5-mg epinephrine in 10-ml lidocaine and 10-ml Marcaine) and injected locally before skin incision in the TXA group. Saline 0.9% IV bolus and standard local anesthesia (0.5-mg epinephrine in 5-ml saline 0.9%, 10-ml lidocaine and 10-ml Marcaine) were used for the control group. The authors’ TXA administration protocols and techniques in rhinoplasty will be illustrated and presented in detail.

RESULTS/COMPLICATIONS: One hundred elective primary rhinoplasties were included in the study. Hospital records were reviewed for patient demographics, operative times, postoperative periorbital ecchymoses and edema, return to social activity, and secondary revision rates. Neither thrombotic events nor other TXA-related complications were recorded.

CONCLUSION: This is the largest study to date on the use of TXA in rhinoplasty. Intravenous and local administration of TXA have a substantial effect in decreasing pain, periorbital edema, and ecchymosis and achieving a faster return to social activity in rhinoplasty patients. In addition, TXA has a potential advantage in reducing rhinoplasty revision rates. These findings highlight the importance of TXA’s anti-inflammatory properties alongside its antifibrinolytic effects, cardinal in its role in aesthetic surgery procedures. These properties may be enormously beneficial in rhinoplasty where postoperative edema may mask results and influence patient and surgeon perception of surgical outcome for several months after surgery.

Submandibular Gland Aesthetic Elimination With Neurotoxin

Presenter: Kristy L. Hamilton, MD

Co-Authors: Roy Kim, MD; Rod J. Rohrich, MD, FACS

Affiliation: Baylor College of Medicine, Houston, TX

PURPOSE: Submandibular glands can be noticeable in some facelift and necklift patients. The current standard is to surgically remove them. The senior author has treated them with neuromodulators during necklift operative procedures and occasionally post-operatively with follow-up injections. We present a novel way to eliminate submandibular glands without the need for excision, achieving a smooth jawline contour post necklift surgery.

METHODS AND MATERIALS: Before any lower facelift and necklift, assessment is done by visual inspection and palpation of the submandibular glands to determine if they require neuromodulator injection. During necklift, if the gland is prominent, then 50 units of Dysport (Galderma) is injected into each gland. Two injections are placed into each gland. Care is taken to inject with a 25-gauge needle under direct visualization. Six weeks after necklift, a postoperative visit with visual inspection and palpation of the submandibular gland is performed. If necessary, a repeat injection of 50 units of Dysport (Galderma) per gland is given.

EXPERIENCE/DATA: A total of 12 patients underwent initial necklift with Dysport injection from 2016 to 2020. Out of these patients, a total of 1 patient/8% of patients required a second injection 6 weeks post surgery. No patient required a third injection. A postsurgical survey was performed with interpretation by 3 independent plastic surgeons as well as a patient satisfaction survey. Independent plastic surgeons who did not perform the actual necklift procedure were asked to grade the submandibular gland appearance from before and after photographs. Out of 12 patients, a total of 11 patients/92% were deemed “Total Correction,” 1 patient/8% was deemed “Incomplete Correction,” and a total of 0 patient/0% were deemed “No Correction.” All 12 patients were asked similar questions. A total of 11 patients/92% self reported “Total Correction,” 1 patient/8% self reported “Incomplete Correction,” and a total of 0 patient/0% self reported “No Correction.” One patient required a second injection due to continued palpability of the gland after surgery. She developed the sensation of “dry mouth,” which resolved 2 months after the second injection. No other sequelae were noted by the patient or Plastic Surgeon. No other sequelae were noted in any other patient, including excessive bleeding, pain at the submandibular gland size, irregular contour deformity, skin necrosis, or seroma formation.

SUMMARY: Dysport (Galderm) injection directly into the submandibular gland, whether through an open technique or by palpation, resulted in substantially less prominent gland and a more aesthetically pleasing jawline.

CONCLUSIONS: Direct submandibular gland excision has a risk of difficult to control bleeding due to the unique

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CONCLUSIONS: Direct submandibular gland excision has a risk of difficult to control bleeding due to the unique
and random arterial supply of the gland. Having smaller exposure due to a necklift incision lateral to the gland does not aid in visualization of the gland and the blood supply. Direct neuromodulator injection into the gland is a safe and effective way to decrease the visibility and palpability of the gland on a long-term basis. We feel it is a useful alternative to surgical excision of the submandibular gland.

**Long-Term Functional Outcomes Following Septal Extension Grafting in Open Rhinoplasty**

**Presenter:** Navid Pourtaheri, MD, PhD

**Co-Authors:** Kitae Eric Park, BA; Omar Allam, BS; Ludmila Chandler, BS; Derek M. Steinbacher, MD, DMD

**Affiliation:** Yale School of Medicine, New Haven, CT

**BACKGROUND:** Septal extension grafts in rhinoplasty can successfully support tip projection/position, tension the lower lateral cartilages, and thereby open the nasal airway. Since long cartilage grafts under tension may warp or collapse over time, long-term outcomes must be evaluated in these patients. We aimed to assess long-term functional outcomes in a large series of patients who underwent septal extension grafting.

**METHODS:** Retrospective chart review was performed on all patients who underwent an open rhinoplasty approach that included use of a septal extension graft performed by a single surgeon from February 2013 through December 2018. Patients with a minimum 12-month postoperative follow-up were included. Pre- and postoperative functional outcomes including history of nasal obstruction, snoring, sleep apnea, sinus congestion, and sinus headaches were recorded. Patient demographics, types of grafts used, patient complaints, readmission, and reoperation rates were recorded. Statistical analysis was performed using McNemar’s test.

**RESULTS:** Of the 385 patients who underwent open rhinoplasty with septal extension grafting during the study period, 127 with adequate follow-up were included; 72% females, 28% males, mean age 28 (range: 5–72) years. 83.5% primary rhinoplasty, 16.5% secondary rhinoplasty. Mean follow-up was 24.2 (range: 11.2–74.0) months. 10.2% had history of cleft lip, 49.6% had history of nasal trauma. Other graft types used included tip/infratip (92.9%), dorsal onlay (90.6%), spreader graft/flap (92.1%), and columellar strut/onlay (7.9%). 85.0% underwent a turbinate outfracture/coblation. Patients reported an improvement in (pre-versus postoperative) nasal airway obstruction (89.8% versus 11.8%; \( P < 0.001 \)), snoring (55.1% versus 1.6%; \( P < 0.001 \)), sleep apnea (5.5% versus 0.0%; \( P = 0.016 \)), sinus congestion (45.7% versus 15.7%; \( P < 0.001 \)), and sinus headaches (6.3% versus 0.0%; \( P = 0.008 \)). All patients reported an improvement in aesthetic appearance, with 7.9% undergoing touch-up procedures such as filler or fat injection to smooth a minor contour deformity. 6.5% of patients in this cohort required reoperation; the most common reasons for reoperation were for nasal deformity/deviation (72.0%), persistent airway obstruction (20.0%), and scar revision/dermabrasion (8.0%). Only 3.1% of noncleft, nontrauma patients required revision. No patients reported worsening of nasal airway patency.

**CONCLUSIONS:** Septal extension grafts, when applied in open rhinoplasty patients, can reliably and significantly improve functional outcomes in addition to the aesthetic benefits to tip projection and rotation. Quantitative analysis of nasal airway changes following septal extension grafting will be presented.