METHODS: An Institutional Review Board-approved, retrospective review was conducted on all patients who underwent a cleft rhinoplasty by the senior author at the time of their primary cleft lip repair between January 1996 and January 2018. Patients above 3 years old at the time of the repair were excluded.

RESULTS: Of the 60 patients who met the inclusion criteria, cleft type was as follows: 22 UCL-L (36.7%), 10 UCL-R (16.7%), 12 UCL/P-R (20.0%), and 16 UCL/P-L (26.7%). Thirty-seven (61.7%) were male, and 23 (38.3%) were female. Seventeen (28.3%) presented with other congenital comorbidities, most commonly cardiac. The median age at surgery was 3 months. Degree of lip clefting was noted for 57 patients, of which 31 (54.4%) were complete and 26 (45.6%) were incomplete. No patient had short-term complications related to their initial cleft lip and rhinoplasty repair, such as bleeding or airway compromise. Fifty-two (86.7%) patients had follow-up appointments in the medical record, with an average follow-up of 6.27 ± 5.56 years (0.01–19.3). Average age at last follow-up appointment was 6.60 ± 5.55 years (0.2–20.0). Thirty-three (51.9%) were above the ages of 3 and 5 years old, respectively, at last follow-up. None of the school-aged patients required additional surgical correction of the cleft nose deformity before beginning school. Eight (15.4%) patients had follow-up beyond 16 years, with ages ranging from 16 to 20. Two of these had definitive rhinoplasties as adolescents. Of the remaining 6 patients beyond 16 years old, none was seeking an additional rhinoplasty at last follow-up, and thus never required an additional nasal procedure beyond the rhinoplasty performed at the time of initial cleft lip repair.

CONCLUSIONS: This is one of the longest-running, single-surgeon cleft rhinoplasty review series. Our patient demographics are consistent with the literature. The cleft rhinoplasty technique described by Salyer results in no complications related to their initial cleft lip and rhinoplasty repair, such as bleeding or airway compromise. Fifty-two (86.7%) patients had follow-up appointments in the medical record, with an average follow-up of 6.27 ± 5.56 years (0.01–19.3). Average age at last follow-up appointment was 6.60 ± 5.55 years (0.2–20.0). Thirty-three (51.9%) were above the ages of 3 and 5 years old, respectively, at last follow-up. None of the school-aged patients required additional surgical correction of the cleft nose deformity before beginning school. Eight (15.4%) patients had follow-up beyond 16 years, with ages ranging from 16 to 20. Two of these had definitive rhinoplasties as adolescents. Of the remaining 6 patients beyond 16 years old, none was seeking an additional rhinoplasty at last follow-up, and thus never required an additional nasal procedure beyond the rhinoplasty performed at the time of initial cleft lip repair.

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Predicting and Managing Pediatric Postoperative Pain in the Age of Opioid Abuse

Presenter: Jaime L. Bernstein, MD

Co-Authors: Kathryn Anna Schlechtweg, BS; Natalia Fullerton, MD; Thomas Imahiyerobo, MD

Affiliation: New York Presbyterian Hospital of Cornell and Columbia, New York, NY

PURPOSE: Opioid abuse and overdose have become an epidemic in the United States, and overprescribing by physicians has been shown to be a major contributor to this morbidity and mortality. The opioid epidemic is especially problematic in the pediatric population, as early exposure has been linked to potential future illicit drug use. Currently, it is common to prescribe pediatric patients opioids for postoperative pain control, although there is a lack of evidence for their necessity in pediatric ambulatory surgery. This study aims to investigate postoperative pain management in the ambulatory pediatric plastic surgery setting and the role of prescribed narcotics to guide future pain management of this vulnerable population.

METHODS AND MATERIALS: This is an observational, prospective study of patient pain management practices and their effectiveness. A questionnaire was developed to interrogate postoperative pain, narcotic use, and pain management practices. All assenting patients and parents of pediatric plastic surgery patients, ages 0–17, who underwent an ambulatory procedure by one attending surgeon from March 2018 to February 2019, were asked to participate in the study. The questionnaire was given at the first postoperative clinic visit. Supplemental clinical data were obtained from patient charts. T-test and univariate analysis were performed to identify significant contributing factors of narcotic use.

RESULTS: Fifty-three patients participated in the study, 34% (18) males and 66% (35) females. Age ranged from 1 to 17, with an average of 8 years old. All patients were offered a prescription for narcotic pain medication, most commonly oxycodone, with 85% (45) filling the prescription, 38% (20) taking ≥1 dose of narcotics, and only 11% (6) taking ≥4 doses. Univariate analysis found no significant difference in the amount of narcotic used based on gender or age (odds ratio [OR], 1.03; P = 0.575; and OR, 0.904; P = 0.086, respectively). However, patient use of narcotic pain medication could be predicted based on type of procedure, comparing simple soft tissue lesion excision to all other procedures, such as otoplasty and rhinoplasty (OR, 0.207; confidence interval, 0.052–0.819; P = 0.025). Patients on average found the efficacy of the narcotics to be comparable to that of over the counter analgesics (4.2/5.
and 4.5/5; \( P = 0.387 \). Of the patients who filled the narcotic prescription, not one patient properly disposed of it postoperatively, with nearly 50% (18) keeping the extra in their home.

**CONCLUSION:** This study demonstrates that most ambulatory plastic surgery pediatric patients will have sufficient pain relief with only over-the-counter pain medications, without the need for narcotic prescriptions. This study also demonstrates that the type of surgery can be used as a guideline for who should receive a narcotic prescription postoperatively. Additionally, education on proper disposal of narcotic medications may be a simple and effective target to decrease opioid availability for abuse. In an era of opioid abuse and misuse, which has been propagated by clinicians’ opioid prescription practices, this research deepens the physicians’ understanding of postoperative pain management in pediatric plastic surgery ambulatory patients and serves to guide future pain management and narcotic regimens.

**Pain Drawings Can Predict Poor Surgical Outcomes in Migraine Surgery**

**Presenter:** Lisa Gfrerer, MD, PhD

**Co-Authors:** Marek A. Hansdorfer, MD; Ricardo Ortiz, BSc; Kassandra P. Nealon, BSc; William G. Austen, MD

**Affiliation:** Massachusetts General Hospital, Harvard Medical School, Boston, MA

**PURPOSE:** Patient selection for migraine surgery is the most important variable to ensure successful outcomes. From verbal and written descriptions alone, it can be difficult to understand patients’ pain/trigger patterns. In our experience, a superior method to visualize pain is to ask patients to draw where the pain originates and where it radiates. We have found that there are pathognomonic pain patterns for all trigger sites that should be considered in patient selection. We typically do not operate on patients with atypical pain patterns, as we believe they are poor candidates for surgery. There is a small subset of these atypical patients who undergo surgery based on other strong clinical findings. In this study, we attempt to quantify this clinical experience.

**METHODS AND MATERIALS:** One-hundred six patients were prospectively enrolled in this study and asked to complete pain diagrams at screening. Diagrams were analyzed and categorized by 2 independent, blinded reviewers: (1) typical—pain over the distribution of a nerve with expected radiation; (2) intermediate—pain over the distribution of the nerve with atypical radiation; and (3) atypical—pain outside of normal nerve distribution and atypical radiation. Surgical outcomes were documented using pre and postoperative migraine headache index (MHI) calculation. MHI between subcategories was compared using unpaired \( t \) tests.

**RESULTS:** MHI improvement was on average 73% ± 38% in the typical, 78% ± 30% in the intermediate, and 30% ± 40% in the atypical pain drawing group. Mean follow-up was 14.1 months. Inter-rater reliability was 94.3% with \( \kappa \) of 0.8984. There was no significant difference in MHI between the typical and intermediate groups. However, there was a significant difference in MHI between the typical and atypical (\( P = 0.03 \)) and the intermediate and atypical groups (\( P \leq 0.01 \)). The chance of achieving MHI improvement >30% in the atypical group was only 20%. A subgroup analysis of atypical pain drawings was performed to establish criteria for classification as atypical: (1) facial pain that is drawn in other areas than the frontotemporal trigger site distribution (ie, drawn at cheek, jaw, chin, anterior neck); (2) pain that starts at a location that does not correspond to a known trigger site; and (3) diffuse pain that is not localized to a trigger site.

**CONCLUSION:** This study suggests that surgical outcomes for patients with atypical pain patterns are significantly inferior when compared to normal or close to normal patterns. As we continue to develop algorithms to screen patients for migraine surgery, patient self-created pain drawings should be considered as an effective, cheap, and easy to interpret tool to determine candidacy for surgery.

**Prevalence of Blood-borne Pathogens in Facial Trauma Reconstruction Patients at an Urban, Level I Trauma Center**

**Presenter:** Selim G. Gebran, MD

**Co-Authors:** Philip J. Wasicek, MD; Joseph Lopez, MD, MBA; Adekunle Elegbode, MD, PhD; Jordan P. Steinberg, MD, PhD; Yvonne M. Rasko, MD; Arthur J. Nam, MD, MS; Michael P. Grant, MD, PhD; Fan Liang, MD

**Affiliation:** R Adams Cowley Shock Trauma Center, Baltimore, MD

**BACKGROUND:** Blood-borne pathogens, most notably HIV, hepatitis B (HepB) virus, and hepatitis C (HepC) virus, constitute significant occupational hazard to the reconstructive surgeon. This study is the first to examine the prevalence of blood-borne pathogen infections (BPIs) in a facial trauma reconstruction practice.