satisfaction. This approach provides an effective alternative for both male and female patients seeking correction of significant neck laxity or deformity without complaints of facial aging.

21. PATIENT SATISFACTION AFTER HYALURONIC FILLERS: DOES PATIENT PERCEPTION LAST BEYOND THE FILLER?

Salman Khan, BS[1], Theodore Habarth-Morales, BS, 1LT, USAR[2], Harrison Davis, MD[1], Robyn B. Broach, PhD[1], Jospeh Serletti, MD[1], Ivona Percec, MD, PhD[1].

[1]University of Pennsylvania, Philadelphia, PA, USA, [2]Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, PA, USA.

PURPOSE: The efficacy and longevity of hyaluronic acid (HA) fillers are well supported by previous studies. However, the longitudinal relationship between patient perceptions and physical volume retention remains unknown.

METHODS: Female patients ages 40-65 were prospectively enrolled and injected bilaterally in four facial regions using dermal fillers. FACE-Q survey and 3-D imaging was performed before and at 2, 4, and 12-weeks post-injection. A follow-up survey was sent 3-5 years post-treatment.

RESULTS: A total of 101 patients were included. The malar extended midface, upper perioral regions, and lips all showed discordance between volume and PRO scores. Lower perioral region PRO decreased most proportionally to volume. In terms of the whole face, the psychological, appearance distress, and aging modules exhibited greatest durability compared to volume. Long-term follow-up with 30 responses revealed that 67% were more likely to receive injectables post- participation. Among the 33% of patients who did not receive injectables afterward, only 3 reported dissatisfaction with the outcome; cost was a more significant factor.

CONCLUSION: In certain facial regions patient satisfaction persists even as volume diminishes. These findings along with the evidence that patients have a strong desire to maintain treatment can guide patient-provider discussions on treatment frequency, emphasizing that perceived benefits may extend beyond physical fullness. Our results highlight a long-term desire for continued use of injectables or maintenance of appearance among patients.

22. A DECADE IN FOCUS: EXAMINING LESSONS LEARNED FROM LASER AND LIGHT-BASED DEVICE PROCEDURES IN AN ACADEMIC PRACTICE

Bhavana Thota, BS, Vidhya Nadarajan, BS, Anca Dogaroiu, MS, Lauren Kim, BS, Amor Niksic, BS, Victoria Peters, BS, Jennifer Barillas, BS, John Hoopman, CMLSO, Jeffrey Kenkel, MD

UT Southwestern, Dallas, TX, USA.

PURPOSE: The utilization of laser and other energy-based devices in aesthetic plastic surgery has grown significantly. The PURPOSE of this study was to evaluate trends in patient demographics and procedure types, outcomes, and complications of a single plastic surgeon's 10-year experience with energy-based devices. Additionally, this study aimed to quantify the crossover between patients receiving energy-based device procedures and patients receiving aesthetic surgery.

METHODS: This was a retrospective analysis utilizing internal/departmental records and Epic charting from January 2013 to January 2023. Laser and other-energy based device cases were captured using select CPT-codes and patient demographics, procedural details, and complications were recorded.

RESULTS: 632 patients with 1,693 unique encounters were assessed. The study population was predominantly female (85.76%) and Fitzpatrick Skin Type III was most common (n = 231, 36.55%). Intense Pulsed Light (n = 907, 47.61%) was the most frequently used device followed by the 2940 nm (n = 313, 16.43%) and 532 nm (n = 293, 15.38%) lasers. Minor complications included edema (n = 16) and hyperemia (n = 11), while severe complications were infrequent. 0.95% of patients receiving energy-based device treatments went on to receive an aesthetic surgical procedure and 0.79% of patients undergoing aesthetic surgery went on to receive an energy-based device treatment.

CONCLUSION: Lasers and other energy-based devices are safe with low complication rates when utilized by an experienced provider. While there is no clear crossover

between patients receiving energy-based device treatments and aesthetic surgery, energy-based device procedures are a useful adjunct in managing patients' aesthetic concerns.

23. COMPREHENSIVE GENOME WIDE IDENTIFICATION AND FUNCTIONAL STUDY OF EPITHELIAL MESENCHYMAL TRANSITION GENES THAT REGULATE CLEFT PATHOGENESIS AND REGENERATION

Eric C. Liao, M.D., Ph.D, Sogand Schafer, MD, Fegn Wang, PhD, Yongjun Li, PhD, Shannon Carroll, PhD, Yi Xing, PhD

Children's Hospital of Philadelphia, Philadelphia, PA, USA.

PURPOSE: RNA makeup of epithelium is regulated by binding proteins Esrp1/2 that govern epithelial mesenchymal transition (EMT), a central cell process that underpins embryogenesis and regeneration. Loss of Esrp1/2 results in global mRNA isoform dysregulation, resulting in orofacial clefts in all vertebrates. Given the central role of Esrp1/2 to regulate EMT, there is an urgent unmet need to understand its function.

METHODS: We applied advanced long read sequencing and RNA computation to comprehensively identify RNA isoforms genome wide, between wild-type and Esrp1/2 mutant mouse and zebrafish. Differentially expressed isoforms were prioritized based on biological pathway, relative abundance and isoform differences.

RESULTS: We found that >60% of isoform switches identified involved complex or combinatorial AS patterns, which are missed by standard short-read RNA-seq. We discovered novel isoforms that were absent from existing annotations, including in genes with important EMT functions. We discovered that a key transcription factor tp63 is regulated by esrp. Over-expression of tp63 isoforms was sufficient to rescue esrp1/2 mutant clefts.

CONCLUSION: We discovered that tp63 isoforms require esrp1/2 function, and that expression of specific tp63 isoforms is sufficient to rescue cleft palate of the esrp1/2 mutant. These results provide the scientific basis of a gene therapy strategy to exploit modulation of exon usage. We have also generated a EMT long-read RNAseq atlas that will inform broad research questions in cancer, embryology and regeneration.

24. SUB NORMOTHERMIC MACHINE PERFUSION IN THE NON-HUMAN PRIMATE PARTIAL FACE TRANSPLANT MODEL: A PRELIMINARY STUDY

Haïzam Oubari, MD[1], Loïc Van Dieren, MS[1], Lucile Cabanel, MD[1], Yanis Berkane, MD, PhD[1], Mark A. Randolph, MAS[1], Korkut Uygun, PhD[1], Curtis L. Cetrulo, Jr., MD, PhD[2], Alexandre G. Lellouch, MD, PhD[1].

[1]Massachusetts General Hospital, Boston, MA, USA, [2]Cedars Sinai Medical Center, Los Angeles, CA, USA.

PURPOSE: Vascularized composite allografts (VCAs) face substantial challenges, particularly in immunosuppression and ex vivo preservation. Subnormothermic machine perfusion (SNMP) offers a promising alternative to conventional static cold storage for preserving and reconditioning VCAs. This study investigates our extended SNMP protocol, optimized for non-human primate (NHP) VCAs, and its effects on graft immunogenicity.

METHODS: Partial facial grafts were procured from non-human primates (NHPs) weighing 4-8 kg (n=6) and perfused for 18 hours with non-recirculating Steen+ solution under a low-flow, high-oncotic protocol. Parameters including pressure, flow, weight gain, metabolic markers (lactate, pH, O_2, ions) were monitored. Pre- and post-perfusion tissue and perfusate samples were taken for analysis of the immune compartment (FACS), cytokine and gene expression profile as well as tissue histology.

RESULTS: The grafts' mean warm ischemia time was 3 hours before perfusion. Following 18 hours of continuous SNMP, mean weight gain was remained below 10%. Perfusion parameters and histology indicated stable ex vivo metabolic equilibrium and well-preserved tissues. Immune cell viability was maintained in the skin, with no major perfusion washout effect noticed, and the cellular stress response to perfusion was characterized.

CONCLUSION: We present the first application of continuous SNMP in the NHP partial face transplant model, advancing understanding of the model's response to extended ex vivo preservation and establishing a foundation for future ex vivo therapeutic uses in conjunction with tolerance induction protocols.