assessment of atraumatic tissue handling, a cognitive behavior that trainees must reach proficiency in before performing high-stakes subtasks like pedicle dissection. Ongoing work includes incorporating additional SME interviews, creating a visual framework of DIEP flap reconstructions, and developing targeted educational and assessment tools for trainees based on this framework.

#### 70. Quality Analysis Of Top 100 Surgical Videos In Plastic Surgery On Youtube Vs PRS Journal

*Daniela Lee, BS, Kelly Li, BS, Maria J. Escobar-Domingo, MD, James E. Fanning, BS, Benjamin Rahmani, MS, Bernard T. Lee, MD, MBA, MPH* 

#### Beth Israel Deaconess Medical Center, Boston, MA, USA.

Purpose: Plastic surgery videos on YouTube, originally intended for healthcare professionals, have increasingly attracted a diverse viewership, including patients who actively engage with the content through discussions in the comment section. The degree of content regulation, however, is a key difference between YouTube and Plastic and Reconstructive Surgery (PRS) Journal. While PRS video articles are subjected to rigorous peer review and editorial oversight, YouTube content lacks such scrutiny. Nevertheless, YouTube videos offer unparalleled accessibility and are increasingly designed to cater to a broader demographic, making them a crucial source of information for patients seeking knowledge about their potential plastic surgery procedures. In this study, we aim to compare the health information quality between surgical videos found on YouTube versus those published in PRS.

**Methods:** To assess the quality of medical information presented on both platforms, we employed three established health information quality scoring guidelines: JAMA criteria, DISCERN scoring guidelines, and Health On the Net (HON) scoring guidelines. These guidelines enabled us to evaluate the reliability and comprehensiveness of the medical information conveyed in the top 100 YouTube videos and PRS video articles ranked by number of views. Videos in a non-English language or those that required subscriber access were excluded from the study. Comparative analysis of the compiled scores was completed using two sample T-tests.

**Results:** Our findings revealed a significant improvement in medical information quality across all three scoring guidelines for average scores from PRS video articles compared to the YouTube videos (JAMA: 3.3 vs. 2.4, p < 0.001; DISCERN: 52.0 vs. 43.9, p < 0.001; HON: 11.9 vs. 8.2, p < 0.001). Notably, the PRS videos were rated higher than YouTube in source citations (4.0 vs. 1.1, p < 0.001), source dating (3.9 vs. 1.1, p < 0.001), content bias (4.1 vs. 3.4, p < 0.001), additional support (2.8 vs. 2.1, p < 0.001), treatment options (2.4 vs. 2.0, p = 0.039), and overall quality (3.2 vs. 2.9, p = 0.033).

**Conclusion:** Our findings highlight a significant disparity in medical information quality between the two sources. This study emphasizes the importance of critically evaluating medical information, particularly for patients seeking knowledge about plastic surgery. The regulated and peer-reviewed nature of the PRS journal contributes to the publication of more comprehensive and reliable medical information. While YouTube provides accessible information to a broad audience, it falls short in providing the same level of rigor and credibility. Patients should exercise caution when relying on YouTube content for medical information. To better serve the needs of patients and healthcare professionals, efforts should focus on improving the quality of medical information on social media platforms while expanding accessibility to peer-reviewed videos.

### 71. Peripheral Nerve Injury After Deoxycholic Acid (Kybella) Injection

David Chi, MD PhD, Sai L. Pinni, BS, Dan A. Hunter, RA, Matthew D. Wood, PhD, Susan E. Mackinnon, MD

# Washington University Medical Center, Saint Louis, MO, USA.

**Purpose:** Deoxycholic acid (Kybella) is a drug commonly injected in non-surgical aesthetic procedures to locally reduce subcutaneous fat. Kybella treatment has been reported to have adverse effects, one of which can cause marginal mandibular nerve injury with noticeable functional deficits when injected to target submental fat. As an adipocytolytic agent, Kybella may damage the lipid-rich myelin surrounding peripheral nerves. Given that limited basic science studies investigating this agent have been performed to date, this study seeks to characterize the nerve injury associated with Kybella.

**Methods:** Using a sciatic nerve injection model in rats, intrafascicular and extrafascicular injections of deoxycholic acid (Kybella) were compared to intrafascicular lidocaine

(positive control) and intrafascicular saline (negative control) injections. All agents were administered in a 50  $\mu$ L volume to the sciatic nerve proximal to its trifurcation. Injection sites were delineated with 10-0 nylon suture 1mm proximal and distal to the injection. Nerves were harvested at a 2-week endpoint for histomorphometric analysis and electron microscopy.

**Results:** Intrafascicular saline injection caused minimal injury to sciatic nerve. Comparing the area of healthy nerve with injured nerve fibers marked by scarring and fibrosis, the percent area of injured sciatic nerve was 78% in the intrafascicular Kybella group, 49% in the extrafascicular Kybella group, and 40% for the intrafascicular lidocaine group. There was a significant difference between the intrafascicular lidocaine and Kybella groups (p=0.003), as well as the intrafascicular and extrafascicular Kybella groups (p=0.045). The g-ratio assessing axonal myelination was not significantly different between the lidocaine (0.58), Kybella (0.58 and 0.56), and saline (0.56) injection groups.

**Conclusion:** Initial results suggest deoxycholic acid (Kybella) is capable of extensive nerve injury. Although Kybella is a known adipocytolytic agent, its mechanism of damage does not seem to involve myelin. Physicians administering Kybella for non-surgical aesthetic treatment of excess fat should be aware of these potential side effects, and further translational studies are needed. Appropriate knowledge of surgical anatomy is recommended for those practitioners providing Kybella injections.

# 72. Expansion Of Renuvion® Application To Areas Beyond The Submental Region: Review And Experience

Amelia Layne Davidson, BS<sup>1</sup>, Cassandra R. Driscoll, MD<sup>2</sup>, Matthew Marturano, MD<sup>3</sup>, Bill G. Kortesis, MD<sup>4</sup>, Gaurav Bharti, MD<sup>4</sup>.

<sup>1</sup>Wake Forest University School of Medicine, Winston-Salem, NC, USA, <sup>2</sup>Atrium Health at Wake Forest Baptist, Winston-Salem, NC, USA, <sup>3</sup>Atrium Health at Carolina Medical Center, Charlotte, NC, USA, <sup>4</sup>HKB Cosmetic Surgery, Charlotte, NC, USA.

**Purpose:** Minimally invasive and consistent skin redraping following liposuction remains an elusive goal. Application of Renuvion® (Apyx Medical, Clearwater FL, USA), helium induced cold atmospheric plasma provides coagulation, collagen contraction, and subsequent skin tightening making this elusive goal attainable. The objective of this study is to evaluate energy settings, and the safety profile of Renuvion® in an effort to achieve optimal cosmesis through the improvement of skin laxity.

**Methods:** A retrospective review at a single site evaluated cases of Renuvion® between March 2020 and May 2022. Energy settings, use of concomitant VASER® (Solta Medical, Bothwell WA, USA) liposuction frequency, and adverse events were analyzed.

**Results:** In total, 180 patients were evaluated, of which 135 (75%) underwent concomitant VASER® liposuction. Renuvion® was used on the abdomen (47.8%), thighs (45.6%), arms (27.2%), submental region (25%), hip rolls (21.2%) back (19.4%), buttock (3.3%), and chest (2.8%). Amongst the entire cohort, there were a total of 24 (13.3%) complications. Complications consisted of 3 (12.5%) hematomas, 1 (4.2%) burn, 6 (25%) persistent skin laxity with two returned operating room (OR) treatments, 4 (16.7%) seromas, 9 (37.5%) postoperative lymphedema that self resolved, and 1 (4.2%) self-limited neuralgia. There were no complications that required immediate return to the OR.

**Conclusion:** Renuvion® utilization with or without VASER® is safe and effective with excellent, subjective aesthetic outcomes that can be applied to various anatomical locations on the body.

# 73. Generation Of A Small-diameter Universal Artery Graft From Pluripotent Stem Cells

Weifeng Zeng, MD<sup>1</sup>, John P. Maufor, PhD<sup>2</sup>, Robert George, MD<sup>1</sup>, Ellen Shaffre, MD<sup>1</sup>, Peter Nicksic, MD<sup>1</sup>, Sarah Lyon, MD<sup>1</sup>, Jue Zhang, PhD<sup>2</sup>, Marcela Tabima, PhD<sup>2</sup>, Igor I. Slukvin, PhD<sup>1</sup>, James A. Thomson, PhD<sup>2</sup>, Samuel O. Poore, MD PHD<sup>1</sup>.

### <sup>1</sup>University of Wisconsin-Madison, Madison, WI, USA, <sup>2</sup>Morgridge Institute for Research, Madison, WI, USA.

**Purpose:** Cardiovascular disease is the leading cause of death worldwide. Vascular bypass procedures are widely used for occlusive heart and peripheral vascular disease. Current vascular bypass options include both autologous