procedures overall (p<.001, \( \rho = -.091\), 30.0 to 27.0 years), including those undergoing transmale (p<.001, \( \rho = -.092\), 28.0 to 25.0 years) and transfemale procedures (p=.126, \( \rho = -.043\), 33.5 to 32.0 years). Patients undergoing transmale procedures were significantly younger than those undergoing transfemale procedures (p<.001, 22.0 vs 32.0 years). Patients undergoing top surgery were slightly younger than those undergoing bottom surgery (p<.001, 27.0 vs 29.0 years). White patients were significantly more likely to undergo transmale procedures than transfemale procedures (p<.001, 58.6% vs 45.0%), black patients were significantly more likely to undergo transfemale procedures (p<.001, 14.3% vs 7.8%). Among transmale patients, 68.8% (n=2216 of 3221) underwent top surgery and 32.4% (n=1044 of 3221) underwent bottom surgery, including 1.2% (n=39 of 3221) who underwent both top and bottom surgery during the same procedure. Among transfemale patients, 60.6% (n=769 of 1270) underwent top surgery and 41.7% (n=529 of 1270) underwent bottom surgery, including 2.2% (n=28 of 1270) who underwent both top and bottom surgery during the same procedure. There were significant differences across all of these comparisons, such that transmale patients were more likely to undergo top surgery (p<.001), transfemale patients were more likely to undergo bottom surgery (p<.001), and transfemale patients were more likely to undergo simultaneous top and bottom surgery (p=.013).

CONCLUSION: As the cultural, political, and financial climate has made gender-affirming surgery more accessible, the age of patients undergoing these procedures has significantly decreased over the past six years. Transmale patients are ten years younger than transfemale patients. There is significant racial difference in white patients more likely undergoing transmale procedures, whereas black and hispanic patients are more likely to undergo transfemale procedures. Further research will be needed to elucidate the specific disparities in access to these procedures within racial, socioeconomic, and regional differences across the country.

TRACK: RECONSTRUCTIVE
Patient-reported Outcomes after Local Flap Coverage Versus Amputation for Complex Lower Extremity Trauma

**Presenter:** Neel Bhagat

**Co-Authors:** Connor Drake, Steven Dawson, Scott Loewenstein, MD, Kevin Knox, MD, Joshua M. Adkinson, MD, Ravi Bamba, MD

**PURPOSE:** Lower extremity trauma can be devastating, and limb salvage is hypothesized to result in improved quality of life. However, there is a paucity of patient-reported outcomes (PRO) data in lower extremity salvage. Limb salvage can often be achieved with the use of local muscle (e.g. gastrocnemius, soleus) flaps or fasciocutaneous (e.g. reverse sural and propeller) flaps. Limited PRO data is available after local flap reconstruction. Further, PROs comparing these flap types to patients who underwent amputation are limited. The purpose of this study was to compare PROs of patients who received lower extremity salvage using fasciocutaneous flaps or muscle flaps to lower extremity amputation.

**METHOD:** The outcomes of 65 patients that underwent a lower extremity local flap reconstruction (n=33) or amputation (n=32) between 2014 and 2020 were recorded. PROs were recorded utilizing both the Lower Extremity Functional scale (LEFS) and the 36-Item Short-Form Health Survey (SF-36). Chart reviews were performed to collect additional perioperative data. Variables that were predictive of outcomes were determined using multivariate analyses.

**RESULTS:** Surveys were completed by 65 patients (response rate 60.7%). The mean time of survey after flap reconstruction was 3.2 years. Recent trauma (within 90 days) was the most common indication for local flap coverage (n=26). Flap complications included wound dehiscence (n=8) and infection (n=4). Other flap complications included partial flap necrosis (n=12), total flap necrosis (n=2), and secondary amputation (n=4). LEFS score and SF-36 physical functioning scores were significantly lower in patients who underwent muscle flaps compared to fasciocutaneous flaps (p=0.021 and p=0.022 respectively). Muscle flap patients had similar LEFS and SF-36 scores to amputation patients, while fasciocutaneous flap patients had significantly higher LEFS (p=0.017), SF-36 physical functioning (p=0.033), and health change (p=0.050) scores than amputation patients.

**CONCLUSION:** PROs for muscle flap patients were significantly lower than those of fasciocutaneous flap patients. Patients who underwent fasciocutaneous flaps for limb salvage reported higher PRO scores than those undergoing amputation, while patients undergoing muscle flaps reported outcomes similar to those undergoing amputation. This data suggests that while fasciocutaneous and muscle flaps are both useful limb salvage procedures, fasciocutaneous flaps may confer advantages that result in improved...
patient perceived outcomes. Further study is needed to better characterize outcomes in limb salvage.

**TRACK: CRANIOMAXILLOFACIAL/HEAD AND NECK**

Management of the Inferior Alveolar Nerve in Large Sagittal Split Advancements: To Free or Not?

**Presenter:** Benjamin Massenburg, MD

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**PURPOSE:** Traditional teaching for the sagittal split osteotomy (SSO) suggests that the inferior alveolar nerve (IAN) should be dissected free if it is entrapped within the proximal segment following the split. A recent study found no significant difference in functional sensory recovery (FSR) whether the nerve was freed or left in the proximal segment, but the study was limited to mandibular movements < 10 mm.1 The purpose of the present investigation was to evaluate whether FSR of the IAN is influenced by its location following SSO in patients undergoing large mandibular movements (> 10 mm).

**METHOD:** This was a prospective, split-mouth study of skeletally mature patients undergoing bilateral split osteotomy (BSSO) for management of skeletal malocclusion. The ‘low and short’ horizontal medial ramus osteotomy was performed as previously described.2-4 Patients were included if they underwent SSO with mandibular movements > 10 mm and, following the splits, IAN was freely entering the distal segment (IANDI) on one side and was contained in the proximal segment (IANPR) on the other. Postoperative neurosensory evaluations were completed at 1 week, 3 weeks, 6 weeks, 3 months, 6 months, and 12 months. The primary outcome variable was time to FSR, evaluated using descriptive, bivariate, and Kaplan-Meier analyses.

**RESULTS:** The study included 13 subjects (8 female, mean age 18.7 +/- 1.8 years) undergoing 26 SSOs. Eleven subjects underwent bimaxillary surgery; 10 had simultaneous genioplasty. The mean mandibular movement was 12.2 +/- 1.4 mm and was not significantly different between sides (IANDI 100 days versus IANPR 126 days, log-rank p = 0.57). Subgroup analysis of patients who underwent simultaneous genioplasty similarly demonstrated no difference (log-rank p = 0.54) in the median times to FSR between IANDI (median 102.5 days) and IANPR (median 128 days).

**CONCLUSION:** In SSOs for mandibular advancement with movements > 10 mm, leaving the IAN within the proximal segment does not appear to influence time to FSR.

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**TRACK: RECONSTRUCTIVE**

Management of Melanoma and Positive Margins

**Presenter:** Sara Islam

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**PURPOSE:** Standard treatment of melanoma remains wide local excision (WLE) with negative margins thereby decreasing disease progression and local recurrence. Lesions can be excised and reconstructed immediately or repair can be delayed until histopathologic margins are deemed negative. There are shortcomings and benefits to each treatment modality. The goal of this study was to analyze the safety, and optimum management of positive margins following primary cutaneous melanoma excision.