RESULTS: In total, 530 patients were reviewed and 307 met inclusion criteria with a mean age of 46 and mean BMI of 23.25. Mean follow-up was 3.8 years. 74% of cases were bilateral and 22.8% had a history of radiation. Pairwise comparison of BREAST-Q data demonstrated statistically significant, long-lasting improvement in all domains. At one-year follow-up after exchange of shaped, textured implants to round, smooth implants, psychosocial well-being (72.68 to 76.45; *p*=0.0075) and physical well-being (78.79 to 81.88; *p*=0.0078) significantly increased. Overall breast satisfaction (61.94 to 67.27; *p*=0.0082) and sexual well-being (53.89 to 57.98; *p*=0.0002) were also significantly higher in parallel with a clinically significant increase in BREAST-Q score of 5.33 and 4.09 points, respectively. Most patients felt they looked better (56.4%) or the same (27.3%) and were more comfortable (54.4%) or the same (39.4%) after the exchange procedure. The senior surgeon rated 40.1% of patients as a better aesthetic grade after replacement and 50.3% as the same aesthetic grade. 36.8% of patients were rated as having a decrease in Baker capsular contracture grade and only 4.3% with increased contracture. 2.9% of patients experienced a peri-operative complication and there were no reconstructive failures.

CONCLUSION: Exchange of textured to smooth implants is safe, does not appear to sacrifice aesthetic outcome, and provides a more comfortable and satisfactory outcome for patients with a low rate of complications. These results should be given consideration when counseling patients with textured implants and can aid in making an informed decision regarding exchange.

TRACK: AESTHETIC
Practice Patterns, Part 2: An American Society of Plastic Surgeons (ASPS) Member Survey, 2000 and 2020. How Much Has Browlifting Changed?

Presenter: Demetrius M. Coombs, MD

Co-Authors: Nicholas R. Sinclair, MD, Andrew L. Kochuba, MD, Jacob N. Grow, MD, Alan Matarasso, MD, FACS, James E. Zins, MD

PURPOSE: In 2001, Elkwood and Matarasso conducted an American Society of Plastic Surgeons (ASPS) member survey detailing browlift practice patterns. Despite significant changes in approach in the past twenty years, no survey has been performed since.

METHODS: A 34-question descriptive survey was electronically distributed to a random group of 2,360 ASPS members. Results were then compared to the 2001 survey.

RESULTS: A total of 257 responses were collected (11% response rate; ±6% margin of error at 95% CI). The most frequent technique for the correction of brow ptosis in both surveys was the endoscopic approach. The use of hardware fixation has increased in endoscopic brow-lifting while the use of cortical tunnels has decreased. While coronal browlifting has decreased in frequency, hairline and isolated temporal lift have increased. Neuromodulators have replaced resurfacing techniques as the most common non-surgical adjunct. Frequent use of neuromodulators has risen from 11.2% to 88.5%. Nearly 30% of current surgeons feel that neuromodulators have replaced formal browlifting procedures to a significant degree.

CONCLUSION: In comparing the 2001 and current ASPS member survey there has been a clear transition to less invasive procedures over time. While the endoscopic approach was the most popular means of forehead correction in both surveys, coronal brow lifting has decreased in frequency while the hairline and temporal approaches have increased. Neurotoxins have replaced laser resurfacing and chemical peeling methods as an adjunct, and in some cases replaced the invasive procedure entirely. Possible explanations for the above will be discussed.

TRACK: CRANIOMAXILLOFACIAL/HEAD AND NECK
Springs Forces and Parietal Bone Thickness Interact to Predict Changes in Cephalic Index following Spring-Mediated Cranioplasty for Non-Syndromic Sagittal Craniosynostosis

Presenter: Dillan Villavisanis

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INTRODUCTION: Variables interacting to predict outcomes following spring mediated cranioplasty (SMC) for non-syndromic craniosynostosis, including springs parameters and calvarial thickness, are incompletely understood. Our previous work confirmed patients with non-syndromic sagittal craniosynostosis have significantly different peri-sagittal suture thickness measurements anteriorly, medially, and posteriorly,1 and we hypothesized that, based on these topographic thickness variations, springs forces interact differently at the anterior, middle, and posterior positions to predict changes in CI. We further hypothesized that these interactions may be influenced by calvarial thickness at certain distances from the sagittal suture, with thickness measurements more proximal to the suture demonstrating more significant interactions with springs parameters.

METHODS: Patients undergoing SMC for non-syndromic sagittal craniosynostosis at our institution between 2014 and 2021 were included. Parietal bone thickness was determined from patient preoperative CTs using Materialise Mimics. Anterior, middle, and posterior points along the suture were defined as 10 mm posterior to the coronal suture, the middle of the parietal bone, and 10 mm anterior to the lambdoid suture, respectively, using the ‘measure’ tool in Materialise 3-matics. Using the same tool, points were marked anteriorly, medially, and posteriorly at distances 5 mm, 10 mm, 15 mm, and 20 mm from the suture bilaterally. Thickness at specific points was determined using the ‘analyze locally’ tool in Materialise 3-matics. Linear mixed effects models (LMEMs) in R Studio were used to determine interactions between anterior, middle, and posterior calvarial thickness with anterior, middle, and posterior spring force and length.

RESULTS: Sixty-nine patients were included in this study. LMEMs revealed posterior spring force interacted with posterior parietal bone thickness to predict changes in CI at three months postoperatively (β = -0.22; 95% confidence = -0.40 – 0.03; p = 0.022). When evaluating spring force and calvarial thickness set distances from the sagittal suture, posterior spring force interacted with posterior calvarial thickness 5 mm (β = -0.19; 95% confidence = -0.37 – 0.01; p = 0.043) and 10 mm (β = -0.31; 95% confidence = -0.06 – 0.01; p = 0.036) from the sagittal suture to predict changes in CI. Interactions between springs parameters and parietal bone thickness in the anterior and middle positions did not significantly predict changes in CI (all p > 0.05).

CONCLUSION: Springs forces may interact with parietal bone thickness to predict changes in CI following SMC for non-syndromic sagittal craniosynostosis. Larger posterior spring force may optimally interact with the thicker posterior calvaria to drive changes in CI. These results suggest dynamic interactions between several variables may impact CI following SMC.

TRACK: RESEARCH/TECHNOLOGY

Independent Department Status in Plastic Surgery Has Improved Academic Productivity

Presenter: Charles A. Keane
Co-Authors: Parth A. Patel, Maheen Akhter, BS, Amanda Hua Fang, Edgar Soto, MD, Carter J. Boyd, MD

PURPOSE: Recent trends indicate a transition from plastic surgery divisions within larger general surgery departments toward independent plastic surgery departments. Benefits of independent departmental status include greater financial, academic, educational, and administrative autonomy1 However, there is a dearth of research regarding faculty advancement and research output among these organizational units. The goal of this study was to understand the comparative states of scholarship at departments and divisions of plastic surgery.

METHODS: All independent and integrated residency programs were identified via American Medical Association Fellowship and Residency Electronic Interactive Database Access and the American Council of Academic Plastic Surgeons. From each institution’s website, department or division status, and names of faculty members were extracted. For each faculty, bibliometric profiles were created using the Scopus and iCite databases. Lifetime and five-year h-indexes, and subsequently, m-quotients (h-index divided by years since first publication) were acquired from the Scopus database. Mean relative citation ratio (m-RCR) and weighted relative citation ratio (w-RCR) were obtained from the iCite database. Institutions were then categorized under either a department or division and data were compared between groups using a Mann-Whitney U test with a predetermined level of significance of p<0.05.

RESULTS: 94 institutions with integrated or independent training programs were included in the analysis. Of these, 77 had a division of plastic surgery and 17 had independent departmental status. All departments had an integrated plastic