CONCLUSION: Percentage of total sagittal suture fusion was not associated with CI or head shape in patients with non-syndromic sagittal craniostenosis in this cohort. Decreased fusion of the anterior one-third of the sagittal suture was paradoxically associated with higher CI and more severe scaphocephalic head shape. These findings raise additional questions regarding suture fusion and head-shape morphology, and further research is needed to substantiate these results in patients with non-syndromic sagittal craniosynostosis. These findings may have implications for understanding suture fusion patterns in other variations of craniosynostosis.

REFERENCE:
1. Di Rocco, F., Gleizal, A., Szathmari, A., Beuriat, P. A., Paulus, C., & Mottolese, C. (2019). Sagittal suture craniosynostosis or craniosynostoses? The heterogeneity of the most common premature fusion of the cranial sutures. Neurochirurgie, 65(5), 232-238.

TRACK: CRANIOMAXILLOFACIAL/HEAD AND NECK
Cleft-Q Integration at a Multidisciplinary Cleft Lip and Palate Clinic: A Prospective Study Evaluating Clinical Decision Making

Presenter: Dillan Villavisanis

Co-Authors: Liana Cheung, MBBS, Daria Ferro, Jessica D. Blum, Daniel Y. Cho, MD, PhD, Oksana Jackson, MD, David W. Low, MD, Scott Paul Bartlett, MD, Jesse A. Taylor, MD, Jordan W. Swanson, MD, MSc

INTRODUCTION: Clinical management of patients with cleft lip and palate (CL/P) optimally involves a multidisciplinary team but has historically reflected surgeon assessment of patient appearance and function. For patients undergoing surgical correction of CL/P, Cleft-Q is a condition-specific, validated PRO with twelve modules that assess aesthetic, functional, and psychosocial outcomes. Cleft-Q is a useful tool for capturing CL/P patient perceived outcomes; however, patient self-reported perceptions captured by Cleft-Q may differ from patient verbally expressed perceptions during clinical visits, as well as clinician perceptions of functional and aesthetic outcomes. Additionally, it is unclear how the use of Cleft-Q alters clinical and surgical decision making. The aim of this study was to 1) characterize discordance between patient reported perceptions via Cleft-Q results and patient verbally reported perceptions in clinic and 2) characterize the impact of Cleft-Q on clinical decision making.

METHODS: Patients eight years of age and older were prospectively, consecutively enrolled at a tertiary cleft center. The validated Cleft-Q PRO instrument was completed prior to the clinic visit. The attending surgeon was initially masked to Cleft-Q findings and conducted a standard clinic visit with formulation of a provisional assessment and plan. The Cleft-Q data was then reviewed by surgeon and patient together, and clinical plans were appropriately revised. Discrepancies in verbal and scored PRO responses greater than one standard deviation from normative data were considered discordant.

RESULTS: Twenty-three patients (14 males) at average age of 14.1 ± 3.1 years were included in this prospective study. Nine patients (39.1%) had at least one module of discordance. Discordance was most common in sectors of lip appearance (n = 5, 21.7%), jaw appearance (n = 5, 21.7%), and lip scar appearance (n = 4, 17.4%). Discussion of discordant Cleft-Q results prompted additional conversation regarding management options or clinical course in seven patients (77.8%) and augmented the original clinical management plan in four (44.4%) cases. Two patients were provided non-surgical subspecialist referral and two patients were suitable for surgical management. One patient underwent a recent surgery where an opportunity for concurrent surgical treatment of a separate problem was missed.

CONCLUSION: Early results in this ongoing prospective study suggest implementation of Cleft-Q can identify discordance between patient perception and goals compared to standard surgeon assessment in over one-third of cases, most commonly around lip, lip scar, and jaw appearance. Furthermore, the use of Cleft-Q generated additional conversation or augmented clinical management in a high proportion of patients with discordant results.

TRACK: BREAST
Changes in Marital Status after Receiving the Diagnosis of Breast Versus Prostate Cancer: A Population-based Study

Presenter: Gayle Wiesemann

Co-Authors: Elizabeth Anne Cox, MD, D. Spencer Nichols, Kyle Ockerman, Ellen S. Satteson, MD, Sarah C. Sorice Virk, MD
**Affiliation: University of Florida College of Medicine, Gainesville, FL**

**PURPOSE:** We aim to compare dynamic marital status and assess influencing factors related to this change among participants who receive the two most common gender specific cancer diagnoses—breast and prostate cancer. Factors that lead to the dissolution of marital status can be highlighted and addressed with the goal of implementing psychosocial support mechanisms for couples navigating cancer treatments and improving patients' quality of life.

**METHODS AND MATERIALS:** Anonymous Qualtrics surveys were administered to workers via the Amazon Mturk Platform. Workers aged 18-99 who answered ‘yes’ to 3 screening questions were recruited to take the follow-up survey of interest. The follow-up survey included 3 safeguarding questions to reduce the number of incorrect responses. Demographics including gender identity of self and spouse, race, and marital status were gathered. If workers indicated a change in marital status occurred following cancer diagnosis, the questionnaire continued with information regarding cancer staging, treatment modalities, qualitative assessments of shifting spousal dynamics, and mental health assessments via General Anxiety Disorder (GAD) and Personal Health Questionnaire Depression Scale (PHQ-8) questionnaires.

**RESULTS:** 249 out of 1032 indicated a diagnosis of breast or prostate cancer on the screening survey and 217 out of 227 completed the follow-up survey of interest. 91.4% of women were married at time of diagnosis compared to 84.0% of men (P=0.1854; alpha= 0.05). Women with breast cancer experienced a greater rate of dissolution in marital status following cancer diagnosis compared to men with prostate cancer (83.8% vs 55.8%, respectively. P=0.0465; alpha= 0.05). The qualitative factors listed to influence this change after diagnosis were: more open talks (mean=3.92, SD=0.91), becoming foreign to each other (mean=3.70, SD=0.98), and more conflict in relationship (mean=3.85, SD=0.89). PHQ-8 score indicated major depression for both groups (women mean score=14.0, SD=4.0; prostate mean score=13.7, SD=2.5). GAD-7 indicated moderate anxiety for both groups (women mean score=12.3, SD=3.8; prostate mean score=11.9, SD=2.6).

**CONCLUSION:** There is a discrepancy in the rate of marital dissolution following a diagnosis of cancer in these gender specific common cancers with more women experiencing divorce after breast cancer diagnosis than their male counterparts. Factors that contributed to this change were reported as above. More proactive focus should be given to these social determinants to optimize mental health support of couples navigating breast cancer treatments and implement rigorous psychosocial screening measures to promptly intervene before irreparable strain and ultimate marital dissolution occurs. This study supports routine, active and pre-emptive involvement of a mental health provider during the active and recovery phase of breast cancer treatment.

**TRACK: CRANIOMAXILLOFACIAL/HEAD AND NECK**

**What CT Findings Are Predictive of Post-traumatic Enophthalmos in Orbital Fractures?**

**Presenter:** Marina Lentskevich

**Co-Authors:** Alvin Nguyen, Akriti Choudhary, MD, Oday Obaid, MD, Chad A. Purnell, MD

**Affiliation: University of Illinois at Chicago, Chicago IL**

**BACKGROUND:** Surgical indications for orbital fracture repair include entrapment, diplopia, and enophthalmos.1 However, periorbital edema on initial work-up can be an impediment to evaluation of true enophthalmos. Predicting late enophthalmos is a clinical challenge, and objective guidelines to direct surgical management remain ambiguous. We systematically reviewed the existing data on using CT findings to establish objective metrics to predict enophthalmos during initial trauma work-up.

**METHODS:** We used PubMed as a primary search engine to identify articles addressing orbital fractures and enophthalmos. Inclusion criteria were English-language prospective and retrospective studies that utilized CT findings to predict enophthalmos in asymptomatic patients. Case reports, book chapters, commentaries, and letters to the editor were excluded. The Quality in Prognosis Studies (QUIPS) tool was used to assess articles’ quality.2 PRISMA guidelines were followed. A random effects model meta-analysis of orbital volume change was completed. A regression analysis of data from 8 orbital volume change studies was performed to determine a pooled threshold for 2mm of enophthalmos.

---

1. Shrivastava A, et al. Enophthalmos and periorbital edema: the enigma of orbital fracture. J Craniofac Surg. 2013;24(6):1764-71. doi:10.1097/SCS.0b013e31828b2b0d
2. Shrivastava A, et al. Quality in Prognosis Studies (QUIPS) tool for assessing study quality in the field of prediction. J Craniofac Surg. 2019;30(10):e1087-90. doi:10.1097/SCS.0000000000006360