METHODS: A mixed-methods study was performed using in-depth qualitative interviews and the BREAST-Q questionnaire. The study population consisted of women who received a referral to plastic surgery but choose to forgo PMBR. Women were stratified into 2 groups based on utilization of the referral to plastic surgery or lack thereof. Separate interview guides were developed for both groups, and interviews were conducted until data saturation was reached. Interviews were coded and analyzed using iterative methodologies (e.g., open, axial, and selective coding) under the grounded-theory framework. The qualitative interview data and quantitative BREAST-Q data were analyzed using concurrent triangulation methodology. Reliability and validation checks included member-checking and inter-rater reliability using Cohen’s kappa statistic (mean kappa = 0.99).

RESULTS: Interviews with 8 patients who forwent PMBR revealed: (1) lack of trust in both breast and plastic surgeons was salient; (2) reliance on self-developed support networks and resources; (3) association between lower post mastectomy BREAST-Q scores and decreased utilization of referral to plastic surgery; and (4) dissonance between numerical BREAST-Q scores for psychosocial well-being and reported satisfaction.

CONCLUSIONS: These findings lay the conceptual groundwork acknowledging that nonlegislative and nonfinancial barriers, such as physician distrust and lack of resources and patient-tailored information, contributes to underutilization of PMBR in certain populations. Use of qualitative methodology uncovered deficits in the current pathway to reconstruction faced by the silent majority of women who forgo PMBR including lack of trust in physicians, resources, and counseling. These findings suggest unmet needs of patients considering PMBR which necessitates efforts to address these deficits and increase quality of life and satisfaction after mastectomy by empowering vulnerable patient groups.

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Assessment of the “Wisconsin Criteria” for Obtaining Maxillofacial Computed Tomography in Trauma Patients at a Community Trauma Center

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BACKGROUND: Maxillofacial injury occurs in 25% of trauma patients requiring trauma surgeons to have a high suspicion. Maxillofacial computed tomography (CT) scan is a sensitive method for detecting facial fractures; however, indiscriminate use exposes patients to unnecessary radiation, delays care, and adds additional cost. Sitzman et al developed the “Wisconsin criteria” as a screening tool for patients at risk for facial fractures that would benefit from imaging. The “Wisconsin criteria” consists of 5 physical examination findings: bony step-off or instability, periorbital swelling, Glasgow Coma Scale <14, malocclusion, or tooth absence. The presence of any one of the 5 criteria resulted in a sensitivity of 98.2% and a negative predictive value of 87.8%. An internal validation study discovered a similar sensitivity and negative predictive value. Harrington et al failed to achieve similar results at their institution with an 81% sensitivity and a negative predictive value of 60% with the absence of all 5 exam findings. They concluded that the criteria may be institution specific and not generalizable to other trauma centers. Both study populations were pooled from trauma databases at academic Level 1 trauma centers. The purpose of this study is to assess the “Wisconsin criteria” at a Level 1 community trauma center through a retrospective case study of the trauma database.

METHODS: A retrospective case study was performed consisting of all trauma activations within a 6-month period from May 1, 2018 to October 31, 2018 who had undergone a maxillofacial CT scan. The electronic medical record was reviewed for demographics, injury severity score, mechanism of injury, Glasgow Coma Scale, intracranial injuries,
cervical spine injuries, presence of facial fracture, type of fracture, and any operation performed. The presence of the “Wisconsin criteria” was based on the documented physical examination findings from the initial or tertiary examination. Sensitivity, specificity, positive predictive value, and negative predictive value were calculated. A value of $P < 0.05$ was considered statistically significant. A comparison analysis of prior study results was performed. Institutional Review Board granted approval of the study.

RESULTS: A total of 177 patients underwent a maxillofacial CT scan during the 6-month period. There were 84 patients with facial fractures identified on imaging. The average age was 47.4. The majority were male involved in a motor vehicle collision or ground level fall. A total of 95 patients met the “Wisconsin criteria” on physical examination. The presence of ≥1 of the 5 criteria resulted in a sensitivity of 73.8% (95% CI, 63.1–82.8), specificity of 64.5% (95% CI, 54.0–74.2), PPV of 65.3% (95% CI, 58.1–71.8), and NPV of 73.2% (95% CI, 64.9–80.1). These findings were comparable to those from the external validation analysis performed by Harrington et al. There were 21 patients with facial fractures requiring operative intervention with only 19 meeting the criteria.

CONCLUSIONS: The “Wisconsin criteria” is an adequate screening tool to help aid in selecting trauma patients for dedicated maxillofacial imaging. However, the sensitivity of the criteria is institution specific and not generalizable to all trauma centers.

Reconstructive Options for Composite Maxillary Defects With Orbital Exenteration—The Royal Adelaide Experience

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PURPOSE: Composite orbito-maxillary defects following maxillectomy and orbital exenteration remain one of the most sophisticated reconstructive challenges in head and neck surgery. We present the outcomes of a 15-year single-centre review of patients who underwent reconstruction of Cordeiro types IIIB and IV defects, and review the reconstructive options.

METHODOLOGY: All patients who underwent maxillectomy with orbital exenteration between 2004 and 2019 were identified from the Royal Adelaide Hospital Plastic Surgery database. Patient’s medical records, operation notes, pre- and postoperative photographs were reviewed. The reconstructive methods were analysed based on defect components—skin, maxilla, orbit, palate, and skull base.

RESULTS: A total of 22 patients underwent reconstruction for Cordeiro types IIIB and IV orbito-maxillary defects. The most common pathologies were SCC (59%) followed by melanoma (18%). Fourteen (64%) patients had type IIIB and 8 (36%) had type IV defects. The most commonly used free flaps were rectus abdominis with or without skin paddle (55%), ALT (22%), and ALT/vastus lateralis chimeric flap (14%). Reconstructive options for the skin, maxilla, orbit, palate, and skull base were analysed and described in detail. Flap survival rate was 95%. Other postoperative complications included hematoma (9%) and infection (9%).

CONCLUSION: Reconstruction of Cordeiro types IIIB and IV defects should identify and address each defect component to achieve soft tissue coverage, contour, oronasal, and cranio-nasal separation. The most robust and versatile option is the rectus abdominis free flap. In our experience, bony reconstruction is not required for most Cordeiro IIIB and IV defects.

Preparation of a Surgical Guide for the Prevention of Injury to the Angular and Periosteal Branches While Performing Osteotomy for the Harvest of Vascularized Scapular Chimeric Free Flap for Mandibular Reconstruction

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