

Formal Synopsis
Session Title: Cranio/Maxillofacial/Head and Neck Session 2
Session Date and Time: Saturday, October 27, 2012: 1:15 PM-3:15 PM

Title: Full Face Transplantation: 12-Month Outcomes

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Background: Three patients with complex pan-facial defects imparting severe disfigurement, limited nasal breathing, speech, expression, and oral competence underwent full facial transplantation at Brigham and Women's Hospital in the spring of 2011.

Methods: Donors and recipients were matched for gender, skin color, approximate age and ABO compatibility with negative T and B cell crossmatch. Full facial allografts included all soft tissues from ear to ear and temporoparietal scalp to neck, as well as nasal bones. One recipient also required the entire maxilla. Recipient functional facial structures were preserved to allow for functional reconstruction to pre-transplant level in the event of transplant failure.

Results: The operations proceeded unremarkably; patients received between 2 and 24 units of packed erythrocytes to compensate surgeon-estimated blood losses between 0.5 and 4 liters. Induction immunosuppression was provided with antithymocyte globulin (1.5mg/kg/day x 4 days) and steroid taper. Maintenance immunosuppression consisted of mycophenolate mofetil (1000 mg bid), tacrolimus (through levels of 10-15 ng/ml) and prednisone (slow taper from 20 mg/day), and was monitored by clinical findings and protocol skin biopsies or biopsies taken at times of suspected rejection. Facial aesthetics were restored immediately following the operation. There were significant complications in the post-operative period, mostly infectious, all of which were successfully treated. Two patients suffered single episodes of acute rejection, which were reversed with pulse steroid therapy. All patients were weaned off steroids within 6 months post-transplant. Twelve months after the operation, patients continued to recover sensory and motor function and improve aesthetics as expected (Figure 1).

Conclusions: Surgical and immune suppression related complications are common in facial transplantation, but will likely decrease with growing experience. Data from these early surgical experiences will improve the informed consent process and allow for better patient education.

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Figure 1: Full Face Transplant Recipients 1 year after transplantation.