fascial closure, but many surgeons still use bridged repairs. We compared our outcomes of bridged versus mesh-reinforced repair in AWR procedures.

**MATERIALS AND METHODS:** This retrospective study included 535 consecutive patients who underwent AWR with underlay mesh. Four hundred eighty-four (90.47%) patients underwent mesh-reinforced AWR and 51 (9.53%) underwent bridged repair AWR. We compared outcomes between these two groups using propensity score analysis for risk adjustment in multivariate analysis and for one-to-one matching.

**RESULTS:** Bridged repairs had a higher hernia recurrence rate (33.3% vs 6.2%, p<0.001), higher overall complication rate (58.8% vs 30.0%, p=0.001), and worse freedom from hernia recurrence (log-rank <0.001) than reinforced repairs. Bridged repairs also had higher wound dehiscence (25.5% vs 14.3%, p=0.034) and mesh exposure (9.8% vs 1.4%, p=0.003) rates than mesh-reinforced AWR.

When the treatment method was adjusted for propensity score in the propensity-score-matched pairs (n=100), we found that the hernia recurrence (32.0% vs 6.0%, p=0.002), overall complication (32.0% vs 6.0%, p=0.002), and freedom from hernia recurrence (68.2% vs 31.8%, p=0.001) rates were worse after bridged repair. We did not observe differences in wound healing and mesh complications between the two groups.

**CONCLUSION:** Bridged repair for AWR is associated with worse outcomes than mesh-reinforced AWR. Reinforced repairs should be used for AWR whenever possible.

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**Surgeon and Hospital Factors in Open Ventral Hernia Repair**

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**INTRODUCTION:** Open ventral hernia repair (OVHR) is performed by surgeons of differing training and with supplemental techniques such as mesh or components separation. Although general surgeons perform most OVHRs, plastic surgeons also participate in ventral hernia repair. The impact of specialty training upon OVHR practices is not well understood. Moreover, there has been significant cross-pollination of repair techniques across specialties. We hypothesized that surgeon specialty, surgeon volume, and hospital volume would be predictors of surgical complications, mortality, extended hospital stay, and total charge.

**METHODS:** Retrospective analysis was performed using data from the National Inpatient Sample (NIS) from 2001 to 2009. Patients undergoing open ventral hernia repair (OVHR) were identified using ICD-9 codes. Physician identifiers in the database were used to quantify surgeon OVHR case volume. Surgeon specialty was identified utilizing specialty specific case examples. Plastic surgeons (PS) and General Surgeons (GS) were selected. Non-elective cases or those involving the repair of an inguinal, umbilical, femoral, or diaphragmatic hernia or any type of GI resection were also excluded.

Multivariate regression modeling was used to characterize the association between patient, hospital, and surgeon factors with surgical complications, total charge, length of hospital stay, and in-hospital mortality. Surgical complications were defined using previously described surrogates. Patient age, gender, obesity status, Charlson comorbidity score, payment type, admission source, location, hospital teaching status and region, and total number of concurrent diagnosis and procedure codes were included as covariates in the multivariate models. All tests were two-sided and significance was set at p<0.05.

**RESULTS:** A total of 77,572 open ventral hernia repairs were included in the analysis. 7.1% (n=5,494) of cases were performed by PS and 92.9% (n=72,078) were performed by GS. PS was associated with decreased odds of extended length of stay (OR=0.72, p<0.001), surgical complications (OR=0.71, p<0.01), and death (OR=0.40, p<0.05). PS was also a significant predictor of lower total hospital charge (Beta=-3151.3, p<0.001). High volume hospitals were associated with greater total charge (Beta=1709.7, p<0.001) and increased odds of extended LOS (OR=1.09, p<0.01), but lower risk for complications (OR=0.90, p=0.001).

**CONCLUSIONS:** In this analysis, we found that PS patients had shorter hospital stays, fewer surgical complications or deaths, and lower total charge, despite the fact that GS performs the vast majority of OVHR cases. High volume surgeons and hospitals were both associated with reduced risk for complications of surgery. We identified PS as a predictive factor in the quality and efficiency of OVHR.
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Panniculectomy in Renal Transplant Candidates: A High Complication Rate Yields a Higher Reward

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Background: Renal transplant candidates are frequently declined access to transplantation secondary to obesity and poor functional status. To maintain candidacy on the transplant waiting list, these patients are often required to lose significant weight. Substantial weight loss commonly produces a panniculus, generating a transplant site at high-risk for wound complications, blocking access to this life-extending kidney transplant. To decrease post-transplant wound and graft complications, we implemented a Transplant/Plastic Surgery Program where patients underwent panniculectomy in an effort to regain candidacy on the renal transplant waiting list.

Methods: We performed a retrospective review of all patients deemed high-risk for post-kidney transplant wound complications who underwent panniculectomy in preparation for renal transplantation at our institution from 2008 to 2016. All patients had a minimum of 3 months follow-up. Patient characteristics (age, BMI, medical comorbidities, maximum BMI and weight lost prior to panniculectomy) and surgical outcomes (specimen weight, operation length, time to drain removal, wound complications, time to treat complication) were analyzed after panniculectomy as well as after transplantation.

Results: We performed 41 panniculectomies in renal transplant candidates. Wound complications occurred in 22 patients (54%). Minor wound complications (wound separation, cellulitis, skin necrosis) occurred in 15 patients (37%), major wound complications (hematoma, seroma, abscess, unplanned return to the operating room) occurred in 7 patients (17%). Median complication treatment length was 32 days (range, 5–125). No patient lost time accrued on the transplant waiting list as a result of the procedure or complications. 19 patients have since undergone renal transplantation. One patient (5%) had a post-transplant wound complication resolving within 21 days (hematoma requiring return to operating room).

Conclusions: Panniculectomy in preparation for renal transplantation can be performed in patients with end-stage renal disease with a high but manageable complication rate, converting previously ineligible patients into eligible candidates for kidney transplantation. These wound complications are more easily managed prior to institution of immunosuppression required for renal transplant. While performing panniculectomies in these high-risk patients clearly shifts the burden of complications from Transplant Surgery to Plastic Surgery, it improves patient access to a life-extending procedure, further supporting Plastic Surgery’s vital role in our comprehensive healthcare system.

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Long-Term Outcomes (>36 Months) for Complex Abdominal Wall Reconstruction with Acellular Dermal Matrix

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Introduction: Acellular Dermal Matrix (ADM) for abdominal wall reconstruction (AWR) results in less infectious wound complications compared to synthetic mesh in contaminated fields. However, long-term outcomes data for hernia recurrence rates following AWR with ADM are lacking. The aim of this study was to assess the long-term durability of AWR using ADM.

Materials and Methods: This study included 191 consecutive patients, who underwent AWR with ADM for repair of complex hernia and/or oncologic resection at a single center. We only included patients with a minimum follow-up of 36 months. Mean follow-up was 55.6 months (range 36–104 months). Primary outcome measures were surgical site occurrence (SSO) and hernia recurrence.