There were no differences in other infectious complications. Surgical route did not significantly affect complication rates. The rate of readmission for the IDDM cohort was 4.6% vs. 2.3% and 2.5% for the NDM and NIDDM groups respectively (p<0.0001). On multivariable regression analysis of composite overall complications and wound complications, diabetes was not significantly associated with higher complication rates (p = 0.10).

CONCLUSION: Although there was a higher rate of complications and readmissions in the IDDM group, regression analysis revealed that these differences were not statistically significant when adjusting for demographic and clinical factors.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS: Beritille Gaigbe-Togbe: Nothing to disclose; Jessica J. Chaoul: Nothing to disclose; Anna Romanova: Nothing to disclose; Guillaume Stoffels: Nothing to disclose; Anne Hardart: Nothing to disclose; Lisa Dabney: Nothing to disclose.

The objective of this study is to determine the optimum method of fascial attachment to reduce risk of suture pull-through with failure of the supportive graft. We hypothesized that the risk of suture pull-through will be reduced by

1. Use of a triple knot or barbed suture compared to single interrupted sutures alone
2. Addition of a Vicryl mesh overlay compared to fascia without Vicryl mesh overlay alone
3. Use of fresh tissue specimens compared to tissue which has been frozen and thawed

MATERIALS AND METHODS: Bovine fascia strips 8×2cm were sutured together in an overlapping fashion with PDS sutures or Stratafix Spiral PD0 barbed bidirectional sutures. For the comparison of frozen versus fresh specimens, the samples were then frozen for 48 hours then thawed for 12 hours.

At least 2 cm on each side of the tissues were left free past the overlap, to enable the pneumatic grips of the tensile-strength testing device to hold. The suture pullout strength of the prepared samples was tested using an Instron 5544. The tensile tests were performed with an extension rate of 20mm/minute, and data was collected using Bluehill software. A one-way ANOVA test was performed to determine differences between the means of three or more independent groups and students t-test use to find difference between the means of two groups.

Preliminary data indicates a triple knot at least doubles the tensile strength. Mean 15 Newton (N) max load for single suture configuration versus 40-60 N max load for triple hitch. Assuming a 2-sided α of .05, in order to have 90% power to detect a 50% difference in the mean between groups, a sample size of 6 in each comparison was needed.

RESULTS: The mean maximum load for the single suture attachment was 25N, compared to 84N and 244 N for the triple knot and barbed suture attachments respectively (P=0.0003). The addition of a Vicryl mesh overlay did not increase tensile strength.