

The Technique and the Utility of Partial Superior Latissimus Muscle Free Flap Report of Our First 90 Cases

Harvesting the entire latissimus dorsi muscle results in loss of this particular muscle function and loss of definition of the posterior axillary fold.

Partial muscle harvest has the advantage of preserving the donor site function and avoids the need for future flap debulking, while still providing sufficient well vascularized soft tissue flap for reconstructive options. We want to highlight our flap harvesting technique and report our results with our first 90 patients.

Methods

A retrospective chart review of all of our patients who had partial superior Latissimus flap transplantation between 2003 and 2010 was performed. Patients demographics, indications for the procedure, outcomes and donor site morbidity following the harvest were reviewed. The usual Latissimus Dorsi muscle harvest was modified to preserve innervation and perfusion to the lower two thirds of the muscle, while harvesting the upper portion of the muscle based on the transverse branch of the Thoracodorsal vessels.

Results

Ninety partial superior latissimus flaps were performed to reconstruct the head and neck (36), lower extremity (33) and upper extremity (21) for various reasons. Our average follow up time was about 9 months. All flaps survived except one flap that developed venous congestion in the second post-operative day and eventually lost despite salvage attempts. Our average operative time was 4.5 h. There was no significant long term donor site morbidity in any patient.

Conclusion

This technique of flap harvest preserves the donor site muscle function, posterior axillary fold definition and may help avoiding another surgery to debulk the flap. This muscle flap is an alternative to rectus abdominis flap, and is a useful option for coverage of medium size defects.