Soft tissue coverage in hand injuries is a problem because of underlying exposed bone, tendon, nerve or vessels and often requires loco-regional or free flap reconstruction which is costly with long operative times and postoperative care, as well as significant donor morbidity. Primatrix (TEI Biosciences) allows us to provide coverage of these vital structures without the need for flap reconstruction. Based upon this idea using Primatrix, we performed a retrospective review of all patients undergoing the usage of primatrix for soft tissue coverage over the past 18 months with our group of plastic surgeons; in particular, focusing on cases with hand injury. We additionally, identified any other comorbidities, i.e. diabetes, tobacco use, history of previous hand or upper extremity injury, and any additional traumatic injuries.

Among the data we identified Primatrix use in hand reconstruction for 5 patients undergoing 5 procedures on 6 hands (bilateral in one patient). These patients varied in age from a newborn (4 months) to 71 years of age. All suffered significant hand injuries resulting in soft tissue defects. After the use of primatrix in these patients, none went on to require flaps or local tissue rearrangement, most went on to completion of treatment with split thickness skin grafts over the primatrix. Follow up period ranged from 2 - 18 months. Complications included incomplete take of primatrix in 1 patient, which was then treated with local wound care and skin grafting. There was no incidence of hematoma, seroma or infection. There was one case of keloid formation. All patients went on to physical therapy. All regained use of their hands upon final visit.

In conclusion: Primatrix can serve as an alternative either as a bridging method but sometimes even as an alternative to more complex reconstructive cases in the hand. In doing so it saves patients from long anesthetic times, extensive postoperative wound care (as in the case of abdominal or groin flaps), and saves precious soft tissue for alternative use in poly-trauma patients. Although further study will be required to delineate the ideal use for the product, at this point we present its use as an option for soft tissue reconstruction in the hand.
References


