

WOUND CARE, TISSUE REPAIR & REGENERATIVE MEDICINE

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COMBINATION OF STRAP MUSCLE FLAPS AND Z-PLASTY FOR MANAGEMENT OF TRACHEOSTOMY SCARS

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Introduction: Tracheostomy wounds are left to heal by secondary intention, which usually contract and result in depressed and unsightly scars. This deformity can become dynamic if the scar contracts down onto the trachea.

Methods: We present a case report of a 43-year-old male with a depressed and hypertrophic scar, causing discomfort, pain and limited range of motion of the neck. He developed that scar from a prolonged tracheostomy after sustaining a severe multiorgan crush injury. A scar revision using a combination of sternohyoid and sternothyroid flaps and z-plasty closure was performed. The patient was followed closely in the office for 6 months after the surgery.

Results: The patient healed with no complications. The resultant scar was smaller and smoother in contour. There was no evidence of tracheal tug. There was no subjective weakness from the transposition of strap muscles. The patient experienced relief of discomfort and pain as well as improved range of motion of the neck. He also was satisfied with the aesthetic outcome of his tracheostomy scar.

Conclusions: Tracheostomy wounds may result in disfiguring hypertrophic scars that are not amenable to simple excision and tensionless closure. Strap muscle flaps provide an extra layer of closure, increased volume for bulking up depressed scars, and prevent tracheal adhesions while a z-plasty closure breaks up the scar and helps to decrease tension on the closure. This technique should be considered as the treatment of choice for patients with depressed or hypertrophic tracheostomy scars.