Static Treatment Modalities in Facial Paralysis: A Review

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Abstract

Introduction Facial nerve dysfunction can be attributed to several different causes. Several techniques have been developed to help treat the appearance and functional limitation of patients with sequelae of facial nerve dysfunction. There are options regarding static techniques of facial nerve injury treatment that range from facial musculature plication or shortening, fascial sling suspension via allograft or autograft, injectables and implants (ENDURAGen, AlloDerm, LifeCell, Bridgewater, New Jersey, USA) to techniques such as brow lift, open and endoscopic facelifts, and various eyelid surgeries with upper and lower lid procedures. In this review the various static facial nerve treatment modalities are discussed.

Methods and Results A comprehensive review of the literature was performed detailing the most common static facial nerve treatment modalities and their known results and complications.

Conclusions There are individual issues associated with facial palsy for which individual solutions must be carefully tailored. Despite the presence of many surgical options, the results of reconstruction are limited. With the rapid advancement of surgical techniques, approaches to the management of facial nerve dysfunction have expanded, helping surgeons to improve and utilize alternative techniques for the treatment of patients with acute and chronic facial paralysis.

Keywords
- facial paralysis
- static treatment
- sling

Facial nerve dysfunction can be attributed to different causes. The most common causes are Bell's palsy, infection and inflammation, and trauma including surgical trauma. Other important etiologies include parotid tumors, herpes zoster oticus, and acoustic neuroma resection.[1,2] Facial nerve injuries may be a simple contusion or neuropraxia that spontaneously resolves to complete paralysis, resulting in imbalance of facial expression and facial asymmetry (►**Fig. 1**). Several techniques have been developed to address the appearance and functional limitations of patients with lasting sequelae of facial nerve paresis/paralysis.[2] Such treatments include both dynamic reanimation techniques and static management.

Static treatment modalities of patients with facial nerve injury may include facial musculature plication or shortening, fascial sling suspension via allografts or autografts, injectables and implants (ENDURAGen, AlloDerm, LifeCell, Bridgewater, New Jersey, USA), and techniques such as brow lifting, open and endoscopic facelifts, eyelid weight surgeries, and upper and lower lid procedures. With the rapid advancement of modern day evidence-based medicine, approaches to the management of facial nerve dysfunction have markedly expanded, with important questions constantly being put forward that will only help surgeons improve and develop alternative techniques for the treatment of patients with acute and chronic facial paralysis.[3]

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