

Single Stage Facial Reanimation Using a Split and Segmental Latissimus Dorsi free Flap with an Ultra Long Pedicle

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This paper reports our experience in facial reanimation using free innervated split and segmental latissimus dorsi muscle flap transfer in one stage in 33 patients with long-standing facial palsy.

The segmental latissimus dorsi flap was taken from the distal part of the muscle, so that the muscle flap has an ultra-long neurovascular pedicle of 12 to 17.5cm in length. The muscle flap could be made thinner by splitting the segmental muscle.

The split and segmental muscle flap is transferred to the paralyzed side of the face with its ultra-long neurovascular pedicle passing through an tunnel in the upper lip to the normal side of the face. The neurovascular pedicle of the muscle flap are anastomosed with the facial nerve artery and vein on the normal side of the face. The design of this operation avoids the cross-facial nerve graft stage.

From 1986 to 1992, 33 patients with long standing facial paralysis were treated in our department of plastic surgery. The duration of facial palsy in this series was from 1.5 to 51 years. The results are obtained satisfactory in 32 cases, evaluated at four to eight months post-operatively.

The expression movement of the soft tissues of the face can be seen not only over transferred muscle, but also on the paralyzed muscle covered by the split muscle flap. It is supposed that this is due to muscle-muscle neurotization. Study of 53 sides of latissimus dorsi muscle in the cadavers is discussed in this paper.