The Classification and Treatment Algorithm for Post-Burn Cervical Contractures Reconstructed with Free Flaps

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摘要

Abstract

Neck contractures after burn produce restrictions in motion and unacceptable aesthetic outcomes. Proper planning and tissue selection is essential to minimize donor site morbidity while optimizing outcomes. A classification system and treatment algorithm aids in achieving this goal. Between December 1999 and January 2003, 40 burn patients underwent release and reconstruction with free perforator flaps. Neck extensibility and zone of injury were evaluated. Choice of reconstruction was based on available tissue, restriction degree and zones involved. Cervical territories were classified according to movement restrictions and amount of improvement. Reconstructive territories were classified as central above (CA), central below (CB), central above and below (CAB) and lateral (L). Single, split, double and preexpanded free flaps were used for the reconstructions. Maximal gain in motion was noted at 4 weeks and maintained for the average 11 months follow-up. Types of reconstructive territories showed significant effects on range of motion while etiology and time between injury and reconstruction showed no impact on the functional outcome.

Classification of neck territories aids in improving outcomes while minimizing donor morbidity. The central above territory, when reconstructed with free flaps, yielded the most rewarding improvement. A classification and treatment algorithm aids in achieving significant improvements in range of neck motion while taking into consideration the donor sites.