Targeted Muscle Reinnervation for Prosthesis Optimization and Neuroma Management in the Setting of Transradial Amputation.

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Abstract

Targeted muscle reinnervation (TMR) is a surgical technique that improves modern myoelectric prosthesis functionality and plays an important role in the prevention and treatment of painful postamputation neuromas. Originally described for transhumeral amputations and shoulder disarticulations, the technique is being adapted for treatment of transtibial, transfemoral, transradial, and partial hand amputees. We describe a new technique for forearm TMR following transradial amputation with an emphasis on selecting nerve transfer patterns, managing sensory nerves, improving terminal soft tissue coverage, and employing pattern recognition technology. Copyright © 2018 American Society for Surgery of the Hand. Published by Elsevier Inc. All rights reserved.