Muscle Nerve **38:** 1005–1011, 2008

## Electrical Stimulation-Supported Voice Exercises are Superior to Voice Exercise Therapy Alone in Patients with Unilateral Recurrent Laryngeal Nerve Paresis: Results from a Prospective Randomized Clinical Trial

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ABSTRACT: For more than 40 years, electrical stimulation procedures for unilateral recurrent laryngeal nerve paresis (URLNP) therapy have been proposed. However, it is unclear whether electrical stimulation therapy is effective for URLNP patients. In this study we compare the outcome of traditional voice exercise treatment (VE) with electrical stimulation—supported voice exercise (ES). A total of 90 URLNP patients were recruited to participate in a prospective, randomized trial. The decrease in vocal fold irregularity (CFx) and increase in maximum phonation time (MPT) after a 3-month therapy period were the dependent variables. In the ES group, CFx improved to a significantly greater extent than in the VE group. MPT increased similarly in both groups. Our data indicate that ES is superior to VE for patients with URLNP. Because no further data exist, it can be assumed that improvement following VE only reflects spontaneous recovery. However ES appears to be an effective non-surgical therapeutic procedure.